MODERN PACKAGING

AN ORIGINAL OIL PAINTING FOR MODERN PACKAGING BY WALTER MURCH

GREAT PACKAGING DISCOVERIES: *The squeeze bottle—p. 102*

JUNE 1959

Background for Packaging, p. 41 | *World Report, p. 83* | *Cost Cutters, p. 112* | *Complete contents, pp. 2-3*

Illustration Courtesy of
BEECH-NUT LIFE SAVERS, INC.

National
STARCH PRODUCTS INC.

National
STARCH and CHEMICAL
CORPORATION

WE'VE 'OUTGROWN' OUR NAME

the addition of the word **CHEMICAL** spells out our broader base of operation

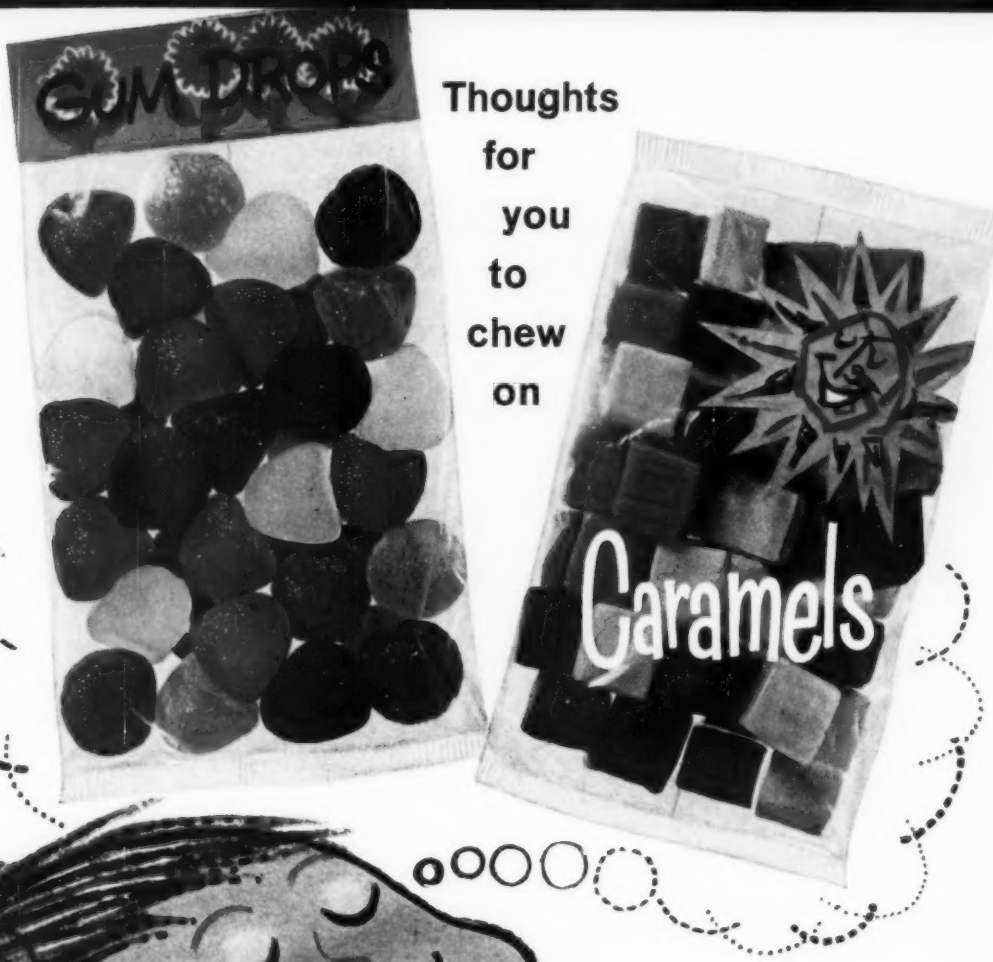
We've changed our corporate name to reflect properly the results of our activities in chemicals and chemical products—*which now constitute about one-third of our current business!*

Our policy of selective research and product development, which was accelerated by the military packaging demands of World War II, has made 'NATIONAL' one of the leading producers of vinyl acetate polymers and copolymers in emulsion form for packaging adhesives, coatings, textiles, papermaking, woodworking, architectural laminations and paints.

The prominence of the word 'STARCH' in our new corporate name confirms our substantial and continued interest in the future of starches, starch specialties and adhesives—*which constitute the major portion of our business!*

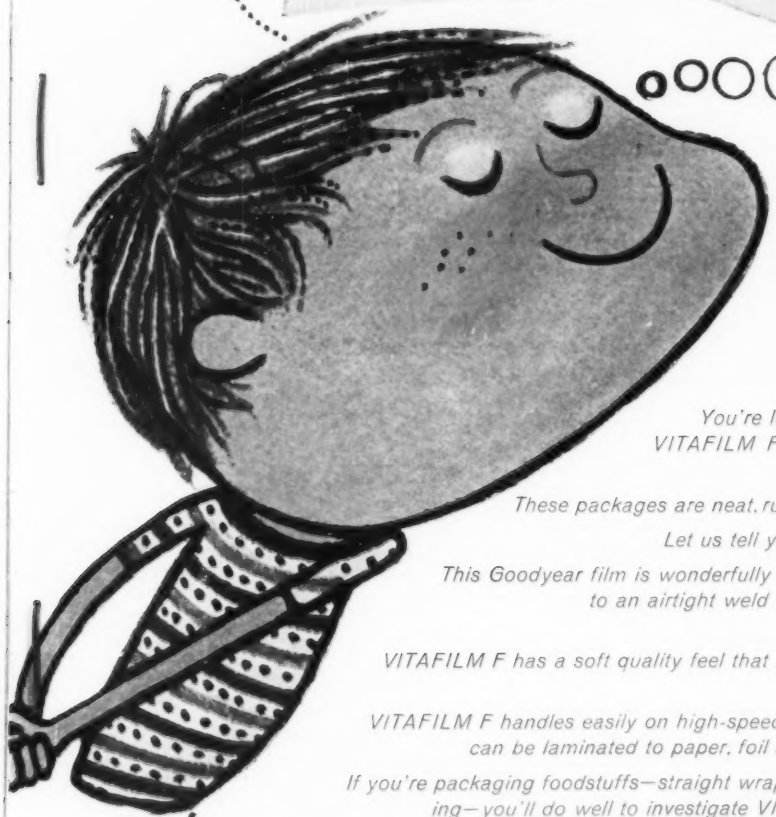
The addition of the word 'CHEMICAL' in our new corporate name reflects not only our increased interest in chemicals and chemical products . . . but also the important part that chemistry has played in the selective research and development of new starch derivatives.

NATIONAL STARCH and CHEMICAL CORPORATION • 750 THIRD AVENUE, NEW YORK 17, N. Y.



Thoughts for you to chew on

Quality Control PACKAGING



VITAFILM F, Goodyear's new food packaging film, is tough, tear-resistant, heat-sealable, printable, machinable and crystal clear—yet it costs no more than the "low-priced three" in transparent films.

You're looking at two of the many packaging possibilities starring VITAFILM F—the new film that's specially designed for more efficient food packaging at lower packaging costs!

These packages are neat, rugged and beautifully salable—as you can see for yourself.

Let us tell you about some of the VITAFILM F qualities you can't see.

This Goodyear film is wonderfully tough and puncture-resistant—doesn't split or run. It seals to an airtight weld as strong as the film itself—practically eliminates loss due to broken packages.

VITAFILM F has a soft quality feel that stays that way through the complete merchandising cycle. It doesn't attract dust, either—just customers.

VITAFILM F handles easily on high-speed automatic machinery, takes color printing beautifully and can be laminated to paper, foil and other films for a wide variety of food type packaging.

If you're packaging foodstuffs—straight wrapping, carton overwrapping, bundling, laminating or pouching—you'll do well to investigate VITAFILM F now. With all its strength, dimensional stability, puncture-resistance, it's priced right down with the "low-priced three" of transparent films.

For further details, call your Goodyear Packaging Films Representative, or write: Goodyear, Packaging Films Dept. F-6418, Akron 16, Ohio.

NEW Vitafilm Type F

by GOODYEAR

Vitafilm, a Polyvinyl chloride—T.M. The Goodyear Tire & Rubber Company, Akron, Ohio

Finest Film for Fresher Foods

JUNE 1959 VOL. 32 NO. 10

IN THIS ISSUE

91 **What's happening to the 5 & 10?**
Pressure for sharpened packaging grows increasingly critical as variety-store men (who now sell almost every type of packaged goods) search for ways to beat the profit squeeze with cost-reducing operations and a new philosophy of trade-up. The reasons: Annual sales are at an all-time high of $3.9 billion, while average profits have been whittled to 4½% from a coveted 7%. Better packaging is one way to help reduce selling expense. A change from the original dime-store concept to large departmentalized stores, rapidly extending into complete self service, involves a new philosophy of trade-up. Packaging must reflect this changing scene. And its influence could affect all types of merchandising for a long time to come. It deserves close watching by all packagers.

97 **Pepper by the puff**
British housewives can now buy pepper in a new, disposable, transparent sheet plastic "pepper pot" attractive enough to be used at the table. Conical in shape, the container dispenses pepper either by shaking or puffing. This cellulose acetate container is used by Spicemanns, Ltd., Glasgow, for ¾ oz. of white pepper. Cost is reported at little more than twice that of conventional metal-end fibre cans, but convenience appeal to the consumer is expected to justify its use.

Special interest: foods, toiletries, chemicals.

98 **Now, detergent in PVA**
A unit pouch made of water-soluble polyvinyl alcohol film has made its debut in the home consumer market. First user is Techno-Economic Services, Inc., for its Toss home-laundry powdered detergent. The 3-by-5-in. pouch is formed, filled and sealed at a new high speed of 120 per minute per web. It holds just enough detergent for an average washing-machine load. Tossed into the machine, the pouch dissolves completely within 1 min. in hot water. The product is never touched by hand. This breakthrough will undoubtedly open up the film's biggest future market.

Special interest: soaps, chemicals, paints.

102 **The squeeze bottle**
A *Great Packaging Discovery*. From a simple plastic duplicate of a Boston-round glass bottle, the molded polyethylene container that originally offered merely light weight and safety against breakage at a premium price was transformed by a Swiss-born chemist and engineer into "the squeeze bottle." Result: a whole new industry producing a low-cost container for an expanding market. Now comes a new phase—the package is evolving into the lowest in cost for many applications strictly as a container without use or regard for the original squeeze function.

106 **Crisis: the new food law—2**
This second article in a series on the new Food Additives Amendment analyzes what packagers can do to get safety clearance for materials within cost and time limits. Commercial testing laboratories estimate that costs may range from less than $1,000 to $10,000 or more, depending upon the availability of standard test procedures and the need for special testing devices. However, if animal-feeding experiments are required, costs can range to $45,000—and may jump as high as $200,000 if exact level of a chemical's toxicity must be determined. In such cases, time extensions will be required. Guarantees from suppliers are not the answer to the two rules by which a material is judged: hazard and toxicity. Best hopes for packagers lie in a joint massive group effort by packagers and suppliers working together in close understanding with F&DA. Next month: F&DA answers key questions posed by industry.

Special interest: foods, drugs.

SPECIAL FEATURES

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"Shows and conferences don't mix."

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A new MODERN PACKAGING feature revealing techniques for reducing the cost of packaging.

MODERN PACKAGING, Executive and Editorial Offices, 575 Madison Ave., New York 22, N.Y. Phone PLaza 9-2710

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OF MODERN PACKAGING®

111 **Jet-age shipper**
A vacuum-formed tray of high-density polyethylene provides high resistance to corrosion, superior shipping strength and easy storage in the packaging of jet engine turbine vanes at General Electric. This Air Force-approved container, made from 20-mil sheet, reportedly cuts cost 30% and cube by 20% compared with former pocketed paper strip used to pack these expensive and delicate parts.

Special interest: drugs, hardware, instruments.

114 **GF's bid: frozen instant baby foods**
With the first major change in the form of baby-food packaging since strained foods were introduced

in jars and cans, Birds Eye makes its long-rumored move into this $275-million market. Single-service foil envelopes hold dehydrated, frozen crystals that reconstitute within 30 seconds in hot water. Here is the story of General Foods' one-city but full-scale market introduction of a 17-item line that can have great impact on both the baby-food and the frozen-food industries.

117 **Onions in thermoforms**
Want to protect or upgrade a rather ordinary product with a revolutionary package that proves it can increase sales 50% and profits 15%? It may pay you to study the success of Collamer Produce Co. in packing premium Spanish and red onions in new compartmented thermoformed cellulose acetate packages with from four to six cavities.

Special interest: foods, drugs, soaps, hardware.

118 **Winning set-up boxes**
To meet current demands for economical, mass-produced rigid boxes and to help this type of container compete more favorably with newer packaging forms, the industry is making advances in mechanical techniques, particularly high-speed boxmaking. Its latest achievements are evident in the 94 award winners among 2,400 entries in the ninth annual competition of the National Paper Box Mfrs. Assn. Thirty-one first-award winners are illustrated and described.

Special interest: drugs, toiletries, foods, apparel, hardware, paper goods, jewelry, toys and games.

124 **Packaging Show report**
In an analysis-in-depth of the 28th AMA National Packaging Exposition in Chicago, the MODERN PACKAGING staff focuses attention on developments in materials, machines, techniques and applications that attracted 27,750 visitors. Also provided are brief abstracts of 22 papers presented at the concurrent Packaging Conference.

TECHNICAL & ENGINEERING

131 **High-frequency carton sealing**
Now being introduced to the packaging field is a new concept for sealing paperboard coated with various materials. It uses high-frequency radio waves in a new machine to permit polyvinyl resin to penetrate through the coating and effect a fibre bond that eliminates need for an overwrap. Among its advantages, this technique enables use of carton-opening devices. *By Peter Collura.*

136 **Improved liquid filling**
Because of its accuracy and high-speed advantages, the piston method is finding new applications in the liquid-filling field. Now new engineering research is lifting its speed limits, as this case history shows. Design refinements in a standard multiple-nozzle filler provide dripless, accurate fill at 110% higher speed with economies in product waste, space and labor. *By Cecil Edgar.*

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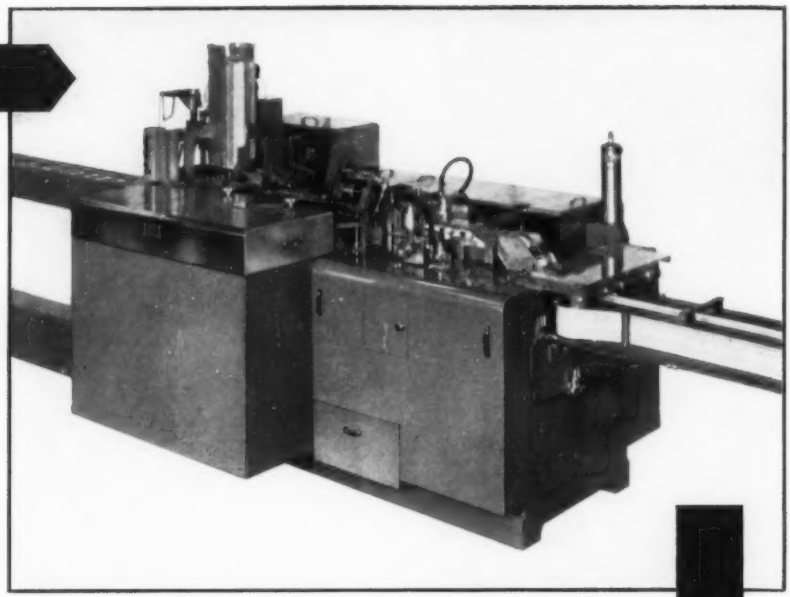
Automatic REDINGTON Cartoning Machine Cuts Labor Costs, Saves Floor Space, Speeds Production for Kellogg Company



• With volume requirements for Kellogg Company's single-serving packages of shredded wheat biscuits expanding rapidly, Kellogg re-examined its packaging procedures to improve production speed and reduce physical effort, labor costs and the attendant overhead.

Originally, the various product inserting, carton feed and set-up, loading, and sealing operations were performed by a series of separate semi-automatic machines, requiring several attendants. These machines and connecting conveyors occupied considerable floor space.

To achieve any major step-up in speed with such a set-up, a whole series of machine purchases, installations, adjustments and timing tests would have been necessary, while all the limitations of the existing pattern remained.

Automatic REDINGTON Meets Problems. Kellogg management, after consultation with REDINGTON engineers, selected a basic Type 24 (with special modifications) as best fitted to meet all requirements. This machine handles the entire operation from product feed to discharge of finished packages.

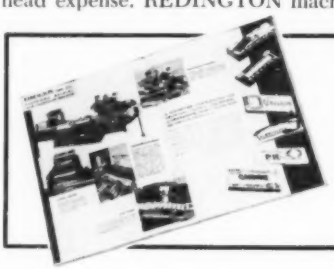
How REDINGTON Handles Job. Two shredded wheat biscuits, convex side down, are placed in each pocket of the article conveyor. The conveyor brings them in front of the carton station, to which the machine has supplied a carton which it has fed from the flat stack in the magazine and formed. Should a pocket be missed, or only one biscuit placed, a skip-carton mechanism prevents feeding a carton. The machine now inserts the two biscuits and moves the filled package to the sealing station, where it closes the carton tightly by double-gluing the end-flaps. To assure positive sealing, the inner main end-panel of the carton is glued to the side-flaps; then the outer main panel is glued to the inner main end-panel.

The REDINGTON now turns each package on edge, squares up the glued ends, and discharges packages in a single line through a drier compressor unit.

The REDINGTON accomplishes this whole packaging cycle at considerably higher speed—up to 180 packages per minute—than was possible with the semi-automatic units which it replaced. It requires the services of only two operators (and four girls to feed biscuits); and occupies considerably less floor space than the original group of semi-automatic machines. It is now performing efficiently in continuous production on an around-the-clock basis, running through four six-hour shifts.

REDINGTON Engineering at Your Service. You may be under a misapprehension as to the true cost of adopting fully automatic equipment, particularly in relation to today's mounting labor and overhead expense. REDINGTON machines

are fixtures in the production lines of "great name" companies all over the world; but you will also find them everywhere improving the efficiency and cost picture for smaller operations. REDINGTON engineers, with more than six decades of packaging experience to draw on, can help you ascertain exactly what fully automatic REDINGTON packaging can do for *you*. We urge you to write or call us about your operation today.



SEND FOR THIS 44-PAGE CATALOG

The REDINGTON line of automatic and special packaging equipment is a broad one. This catalog shows many types of machines, and illustrates the packages they produce. We're sure it will interest you — send for your copy.

F. B. REDINGTON CO.
3010 ST. CHARLES ROAD, BELLWOOD, ILLINOIS • Chicago Phone: AUstin 7-4200

Verona, New Jersey: CEnter 9-4608

since 1897
REDINGTON
AUTOMATIC MACHINES for CARTONING
WRAPPING • SPECIAL PACKAGING

PACKAGES FOR PERFORMANCE

NEW SARAN WRAP-S,* by Dobeckmun, offers superior protective qualities never before available for shrinkable bags and casings: Greatly improved transparency and sparkle, outstanding protection against loss of flavor and drying out, and excellent resistance to grease and chemicals. Saran Wrap-S sets new standards in shrinkable bag marketing in packages for performance by THE DOBECKMUN COMPANY, A Division of the Dow Chemical Company • Cleveland 1, Ohio • Berkeley 10, California • Offices in most principal cities. *T.M.—The Dow Chemical Company

INTRODUCING an important new symbol, identifying the highest standards of protection and transparency in shrinkable bag applications—new Saran Wrap-S. Saran Wrap-S is the special high-shrinkage adaptation of famous Saran Wrap.

PACKAGED IN Saran Wrap-S* S

DOBECKMUN

Saran Wrap-S shrinks to smooth skin-tight snugness, to seal in the fresh-cut goodness of frozen poultry and fish, cooked and processed meats and cheeses. Saran Wrap-S is engineered for use on any shrink packaging equipment

Redesigned jars become home soda fountain

Youngsters took one look at this dispenser pump and clamored for it. But it fitted only the larger of the two sizes this syrup was packed in.

So Armstrong redesigned the smaller jar to match the height and finish of the larger. Now both use the same pump. Also, the familiar lion's head trade-mark was blown in the glass of both jars . . . and each gained a stacker bottom.

See your Armstrong man with your packaging problems. Armstrong Cork Co., Lancaster, Pa.

Armstrong PACKAGING

WATCH ARMSTRONG CIRCLE THEATRE EVERY OTHER WEDNESDAY EVENING ON CBS-TV

POISON IVY ITCH loses its fire fast in the soothing spray from a handy Crown Spra-Tainer—first and most popular aerosol package. And fast is the word for the way sales go up when products of all kinds are pressure packaged with the help of Crown, pioneer in the field. Crown is the only source of both seamless and fabricated Spra-Tainers . . . offers you five different sizes . . . has unparalleled experience in aerosol packaging. Let Crown serve you.

for cans · closures · crowns · machinery

CROWN

CROWN CORK & SEAL COMPANY, INC.
9300 Ashton Road, Philadelphia 36, Pa.

Just Between You and Your Customer

Customer loyalty is your most valuable business asset. One of the custodians of this loyalty is your package, and the product protection it provides.

Here's where Riegel can help, through research, development and manufacture of packaging materials... tailor-made for **your** product... with equal emphasis on protection, low cost, high packaging speed and attractive appearance. More than 600 different materials to choose from... papers, foils, films, and combinations... waxed, coated, printed and plain... tailor-made or standard.

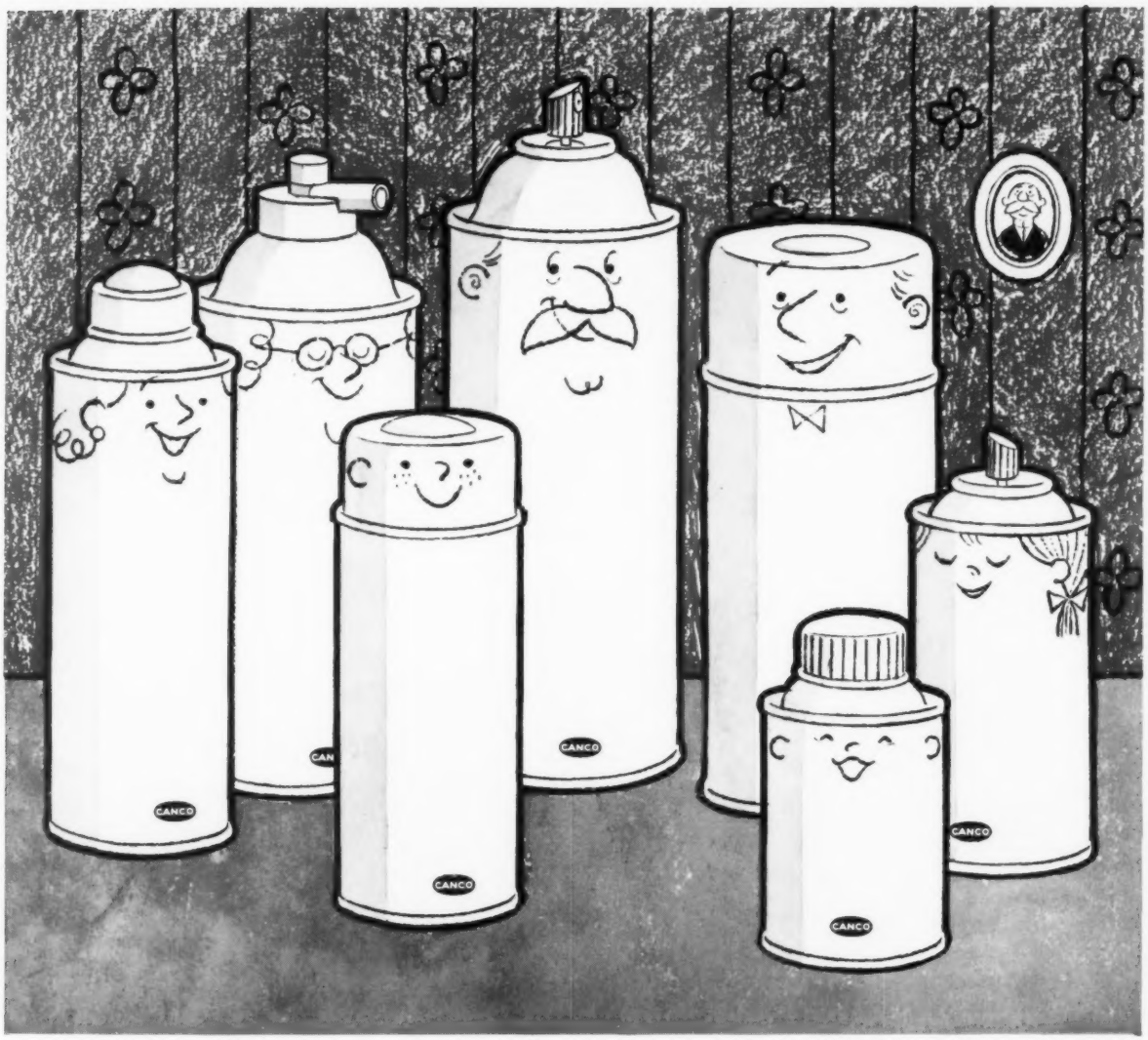
Write to Riegel Paper Corporation, 260 Madison Avenue, New York 16.

P. Lorillard's Union Leader is pouch packaged in a special reverse-printed Riegel Pouchpak(TM), a lamination of foil and glassine, extrusion coated with heat seal polyethylene. Formed and filled at high speed on Bartelt equipment.

Riegel

PROTECTIVE PACKAGING MATERIALS

Canco has the largest family of Aerosol cans to fit your product needs!



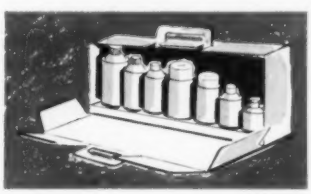
Because Canco has the largest and most complete line of aerosol cans in the industry, you're sure to find the right container to fit your product requirements.

Canco manufactures seven sizes with standard one-inch cup opening or individually styled one-piece tops. Canco also offers an end-use warranty on these containers.

And remember—Canco's famous package design staff is at your service to create new sales appeal for your product with compelling color lithography.

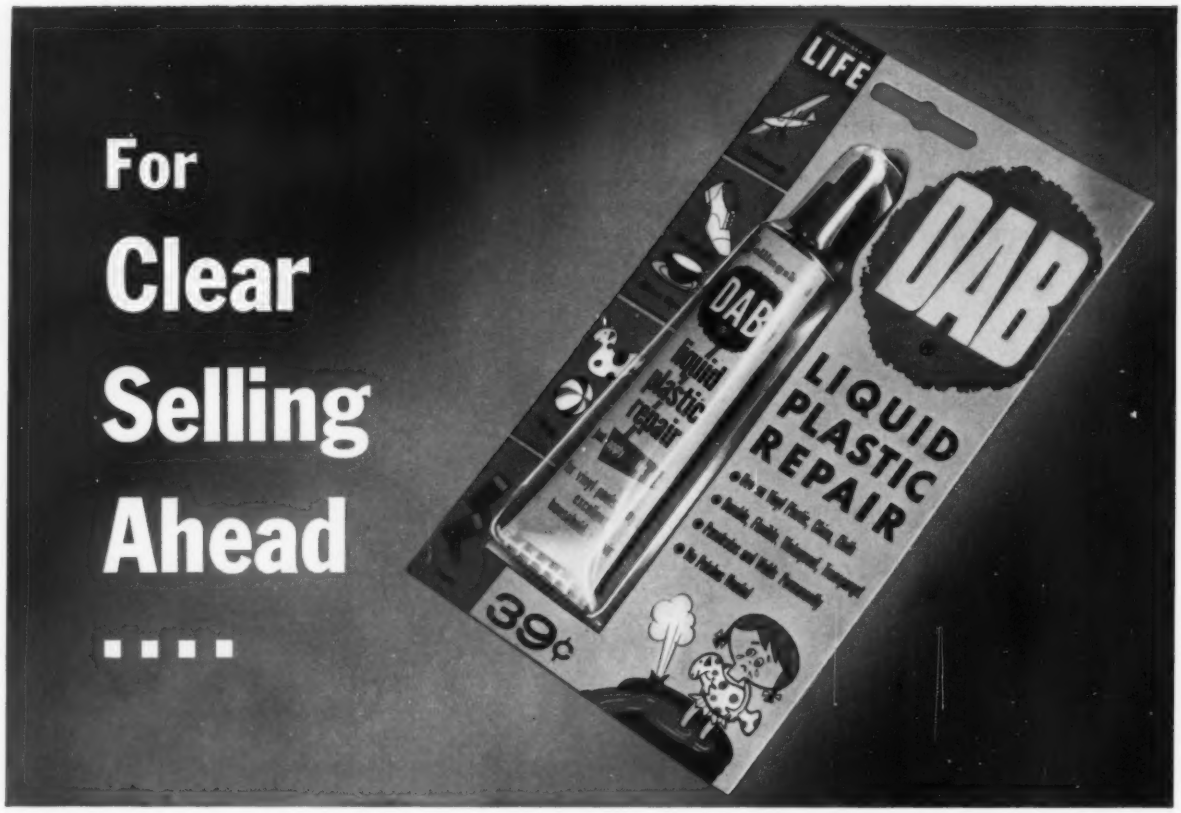
Canco's leadership in this field proves once again its ability to solve packaging problems. Call your Canco salesman today!

A SAMPLE KIT containing all seven Canco pressure cans is yours free. It's available through your Canco salesman only. Ask him for yours, today!



CANCO Division AMERICAN CAN COMPANY

NEW YORK • CHICAGO
NEW ORLEANS • SAN FRANCISCO



Acetate Sheeting

by **JOSEPH DAVIS PLASTICS CO.** Another sales-minded company is added to the growing list of those who use JODA crystal clear acetate to solve their packaging problems. Fabricated by the **P.M. CORP.** of Philadelphia, Pa., this blister pack is used to display and protect DAB Liquid Plastic Repair, made by the Hollingshead Co., Camden, N. J. The sparkling clarity of JODA acetate not only shows the product to best advantage, but the strength and rigidity of this handsome material resists shelf wear and adverse shipping, storage and display conditions as well.

JODA extruded acetate sheets, rolls and film, in all gauges—transparent, translucent or opaque—are excellent for vacuum forming. Why not investigate the advantages of JODA acetate—you'll find that when your product is SEEN better it will SELL better. Write for information and samples.

JOSEPH DAVIS PLASTICS CO.

430 Schuyler Ave.
Kearny, N. J.

Phone
WYman 1-0980
N. Y. BArclay 7-6421

Always welcome—delicious soft drinks in clean, gleaming glass bottles. Young or old, people enjoy their favorite beverages more in glass because they get the full, rich taste every time. Unused portions are easily and safely resealed to retain the flavor.

Your Thatcher representative can point out a number of good reasons why it will pay you to specify Thatcher Wedg-Wall beverage bottles. He'll show you, for example, how these rugged containers are built for long life, and how they reduce costs by making extra round trips. Thatcher quality and service are at work for many of the nation's leading bottlers. They can do a job for you.

THATCHER GLASS MANUFACTURING COMPANY, INC., NEW YORK, N. Y.

FACTORIES: Elmira, N. Y., Jeannette, Pa., Streator, Ill., Lawrenceburg, Ind., Saugus, Calif., Nashua, N. H., Muscatine, Ia.
SALES OFFICES: Elmira, N. Y., Boston, Hartford, New York, Philadelphia, Detroit, Chicago, Minneapolis, Louisville, Los Angeles, San Francisco, St. Louis

Aunt Jemima®

makes it good and easy
with

REYNOLDS WRAP ALUMINUM PACKAGING

Wonderful *convenience*, with mixing bag and baking pan right in the package... and wonderful *quality* and flavor in the final product... these are what made Aunt Jemima's first two Easy Mixes such great successes. Women everywhere are glad to pay a little more for this almost magic way of making delicious, non-crumbling corn bread and home-baked coffee cake!

Now here's a new Easy Mix... with all the flavor and fine quality of other famous Aunt Jemima mixes. It's Aunt Jemima Oatmeal Bread Easy Mix. Again it comes complete with mixing bag and Reynolds Aluminum baking pan... just add egg and milk. Again, the carton is completely overwrapped in Reynolds Wrap Aluminum Packaging. And what shelf-selling beauty this package has, with its highlights of blue and silver!

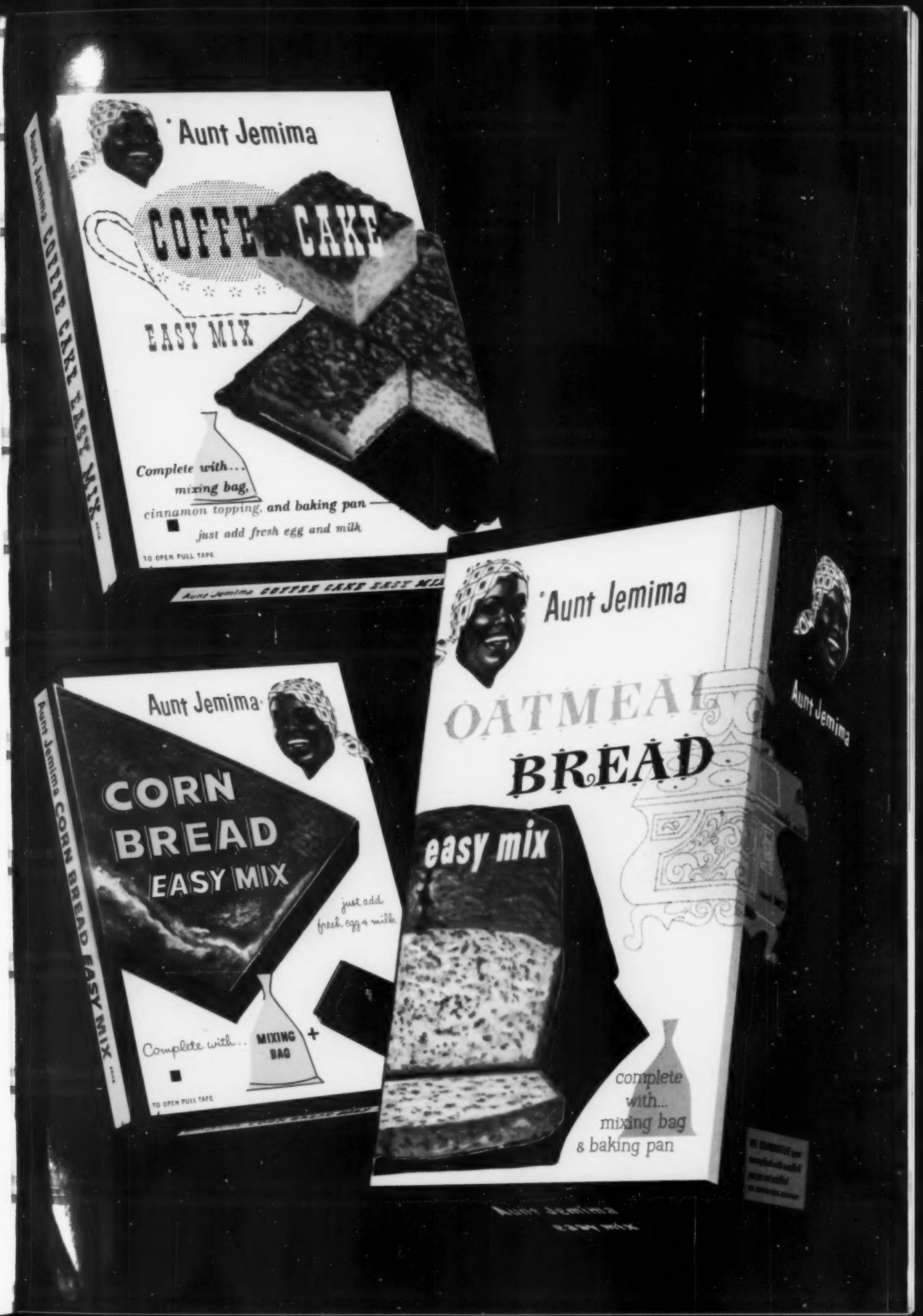
The sound business sense of this container-plus-wrap is part of the New Economics of Reynolds Wrap Aluminum Packaging. It is based on low *relative* cost compared to all other marketing factors, and a high return on the investment. Let us show you how this might apply to your product... and also bring you data from a new consumer study: "The Image of Aluminum Foil." Call any Reynolds sales office. Or write to **Reynolds Metals Company,** Richmond 18, Virginia.

BRAND POWER PLUS!

The Reynolds Wrap Aluminum Packaging Seal identifies protected quality . . . adds an important *plus* to established Brand Power. 8 out of 10 women know this Packaging Seal; 7 out of 10 of these prefer products carrying it. Powerfully promoted!

REYNOLDS ALUMINUM

Watch Reynolds TV show "Walt Disney Presents" Friday Nights on the ABC-TV Network.

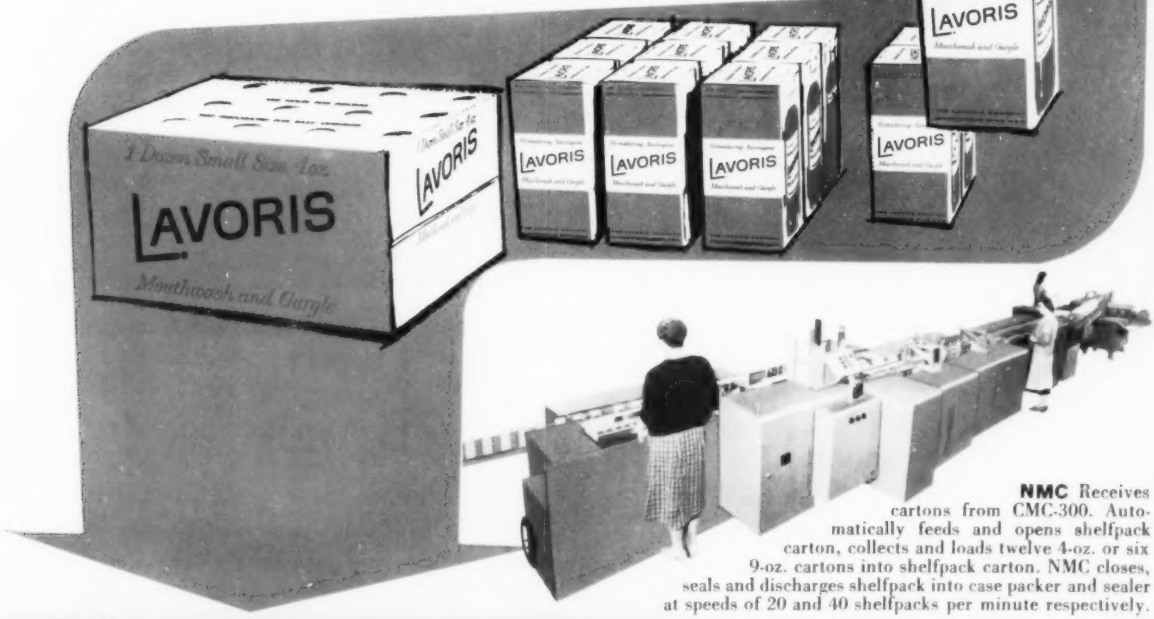

Aunt Jemima
COFFEE CAKE
EASY MIX
Complete with... mixing bag, cinnamon topping, and baking pan
just add fresh egg and milk
TO OPEN PULL TAPE
Aunt Jemima COFFEE CAKE EASY MIX
Aunt Jemima
CORN BREAD
EASY MIX
just add fresh egg & milk
Complete with... MIXING BAG
TO OPEN PULL TAPE
Aunt Jemima CORN BREAD EASY MIX
Aunt Jemima
OATMEAL
BREAD
easy mix
complete with... mixing bag & baking pan
Aunt Jemima

JONES sets record for Lavoris...

240 cpm

Jones' high speed line at The Lavoris Co., Minneapolis, consists of a CMC-300 constant motion cartoner and an NMC nova motion cartoner. This productive combination performs cartoning and shelfpack operations at the rate of 240 cartons per minute and is adaptable to 4 and 9 oz. containers.

CMC-300 Automatically inserts liner, leaflet and bottle into carton, closes and glues carton. CMC-300 equipped with 2-fold leaflet folder and the highest speed corrugated liner feeder in the field today. Liner provides 4-sided protection of the bottle in the individual carton. Liner also eliminates the need for any corrugated divider in the shipping case and permits the use of shelfpacks for convenient distribution from manufacturer to retailer.



NMC Receives cartons from CMC-300. Automatically feeds and opens shelfpack carton, collects and loads twelve 4-oz. or six 9-oz. cartons into shelfpack carton. NMC closes, seals and discharges shelfpack into case packer and sealer at speeds of 20 and 40 shelfpacks per minute respectively.

For complete information on the CMC-300 and NMC, write us, outlining your requirements.

R. A. JONES & COMPANY, INC.
Cartoning Machines - Case Packers

P. O. Box 485, Cincinnati 1, Ohio

BRANCH OFFICES:
New York • Chicago • St. Louis • Los Angeles
San Francisco • Seattle • Mexico D.F.

your product belongs

in glass by Brockway

Before your product is "in the bag" . . . it has to be in the basket . . . and between the shopping basket and the grocer's shelf, there is the matter of consumer acceptance. • Your product can have that consumer acceptance when it is packaged in an attractive glass container by Brockway. • At the point of sale only glass can do this job so well . . . only glass presents your product for quick appraisal and approval. • A product that is worthy of consumer acceptance deserves a quality glass container by Brockway.

BROCKWAY GLASS
COMPANY, INC., Brockway, Pennsylvania
Sales Offices in Principal Cities

HUDSON goes customer shopping in a Cellu-Craft suit

Extensive market research into consumer buying habits revealed to Hudson Pulp and Paper Corporation an overwhelming preference for multiple purchasing of bathroom tissues. Hudson entrusted to Cellu-Craft the task of creating a four-roll overwrap that *aggressively seeks out shoppers.*

Cellu-Craft's rigid performance standards are reflected in the Hudson multi-pack illustrated above. The exacting register of three-color printing, the crisp *flexographic* reproduction of the halftone figure, the solid ink lay-down all combine into package effectiveness that picks customers up in sales-record numbers. Your packaging problem—no matter how involved—will find a smart, speedy, money-saving solution at Cellu-Craft. Write or call today!

CELLU-CRAFT
PRODUCTS CORPORATION

Designers, Color Printers and Converters of Flexible Packaging Materials

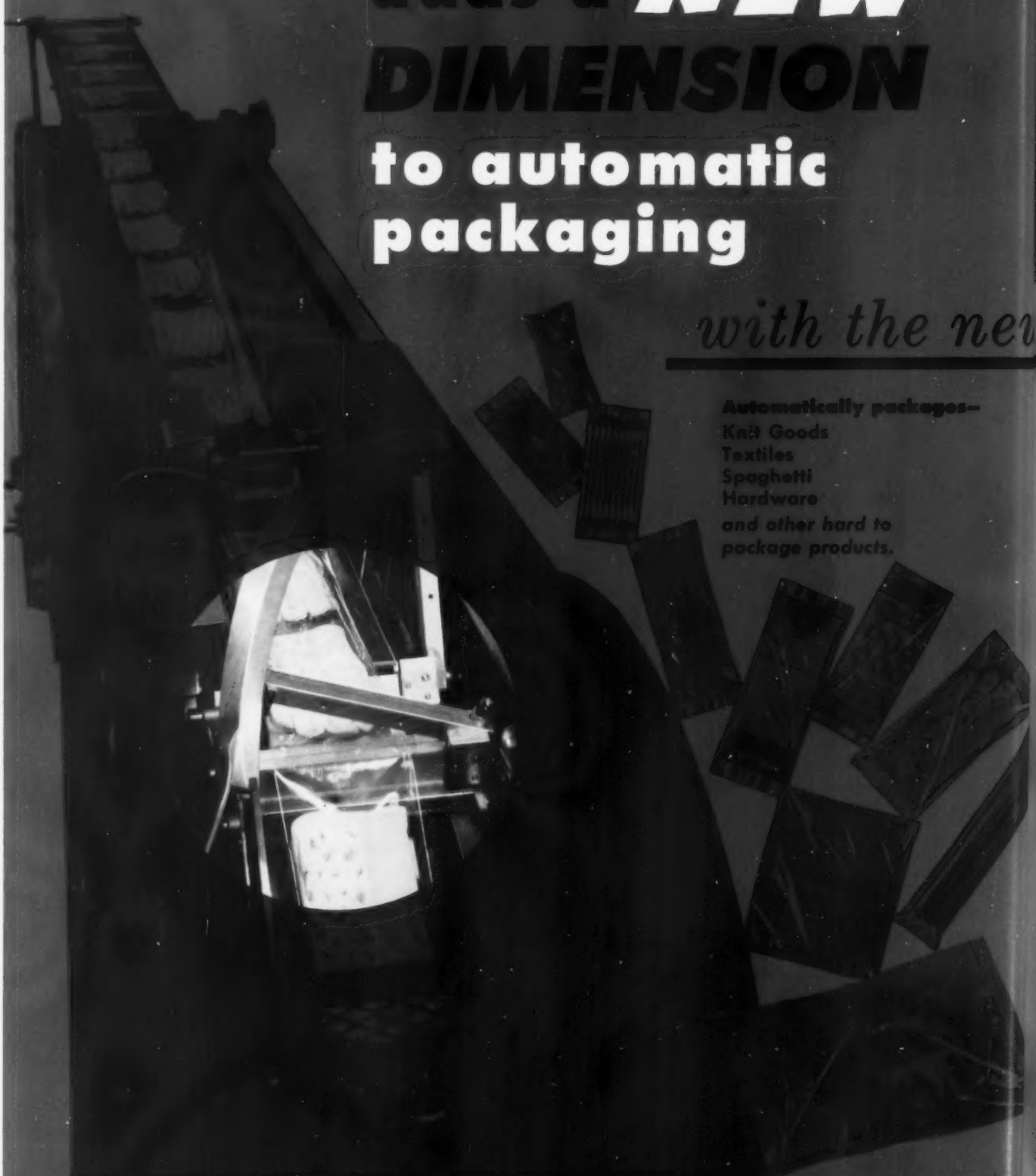
General Offices & Plant: **1401 4th AVE., NEW HYDE PARK, N. Y., PRIMROSE 5-8000** *Sales Offices in principal cities*

PRINTED CELLOPHANE • POLYETHYLENE • PLIOFILM • FOIL • ACETATE • GLASSINE • in ROLLS • SHEETS • BAGS • POUCHES • ENVELOPES

HAYSSEN

adds a NEW DIMENSION to automatic packaging

with the new



Automatically packages—
Knit Goods
Textiles
Spaghetti
Hardware
and other hard to package products.

CHANGE PACKAGE HEIGHT, WIDTH AND LENGTH WITHOUT CHANGE PART

newseries

RT

A new concept in automatic packaging machinery design. The RT packages all non-uniform products without the use of u-boards, cartons or other support. All heat sealing material can be used including unsupported polyethylene. Length, width and height adjustments made without change parts. Length controlled by electric eye registration for printed stock.

Package is formed independent of the product, does not rely on the product in any way. This revolutionary departure from standard packaging machinery design brings modern, automatic packaging convenience to areas where other machinery has failed. For hi-speed, efficient packaging of your product, see the HAYSSEN RT.

THIS IS OUR 50th YEAR AT

HAYSSEN

MANUFACTURING CO. • DEPT. MP. 103 • SHEBOYGAN, WIS.

Hayssen offices are located in the following cities, check the yellow pages of your telephone directory:

Atlanta • Boston • Chicago • Denver • Detroit • Jackson, Miss. • Kansas City
Los Angeles • Minneapolis • New York • Philadelphia • St. Louis • San Francisco
Montreal • Toronto • Vancouver

Please send me complete details on the new HAYSSEN RT packaging machine.

COMPANY: _____

NAME: _____

ADDRESS: _____

CITY & STATE _____

☐ *Please send catalog.* ☐ *Have representative call.*

Metal-End Telescope Cans

now cost less than ever!

Good News for Quantity Users

If you use large quantities of telescope cans, here is important dollar-saving news for you! Through new manufacturing techniques, R. C. Can is now able to bring you a brand-new price schedule. Here are the R. C. Metal-End Telescope Can specifications:

- Any size from 7/8" to 6 5/8" diameters
- Any length to 32"
- Spiral wound with metal ends
- Can be telescoped (divided) at any point
- Wide variety of greaseproof or moistureproof wrappings and linings.
- Spiral-wound labels can be applied with perfect label registration.

...and Don't Forget These Other Low-Cost R. C. Telescope Cans...

- Cuff End
- Full Telescope

R·C· CAN COMPANY

R. C. CAN CO. The Stamp of Quality ST. LOUIS, MO.

Write Your Nearest R. C. Factory For Further Information and Prices.

Atlanta 6, Ga.—L. C. Morris Co., P. O. Box 8042 Station F., 1156 Dalon Drive, N. E. • Boston 10, Mass.—Robbins Paper Company, 263 Summer Street • Chicago 51, Ill.—Joe Ravin, R. C. Can Company, 4806 W. Chicago Ave. • Cincinnati 2, Ohio—Harris Containers, A. J. Harris, 307 E. Fourth St., Room 426 • Indianapolis 20, Ind.—John C. Heim, 1500 E. 77th St., (Mail Address, P. O. Box 6043) • Los Angeles 15, Calif.—Can Supply Company, 1006 W. Washington Blvd. • Memphis 3, Tenn.—S. W. Scott & Son, 608 McCall Bldg. • Milwaukee, Wisc.—National Paper, Can & Tube Company, 401 South 7th Lane • Minneapolis 1, Minn.—W. L. Bennett, 126 S. Third St. • New Orleans 12, La.—C. E. Dobson, 1003 Carondelet Bldg. • New York City, N. Y.—R. C. Can Company, 225 W. 34th Street • Orlando, Fla.—Palmer Supplies Co., of Florida, Palmer Bldg., 209-211 E. Robinson • St. Petersburg, Fla.—J. H. Mackensen, Bay Pines Trailer Park, 10005 Bay Pines Blvd. • San Antonio, Texas—Lerkin C. Smith, Jr., 614 West Kingshighway.

whatever the job . . .

PERMACEL®

PERMACEL *New Brunswick, N. J.* TAPES • ELECTRICAL INSULATING MATERIALS • ADHESIVES

ST. REGIS
MAKES
CORRUGATED
BOXES
AT 19 DIFFERENT
CITIES THROUGHOUT
AMERICA!
They will serve
you well!
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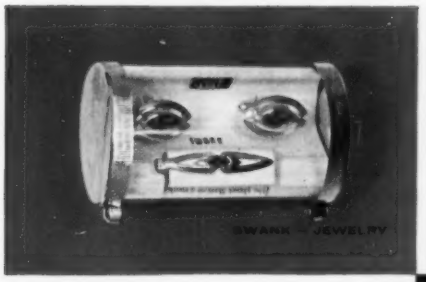
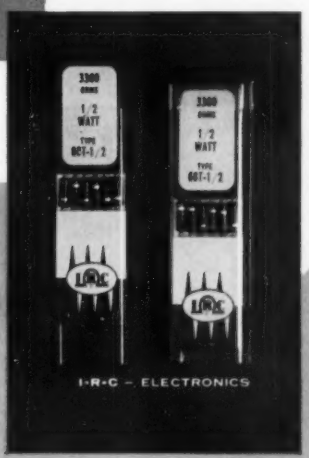
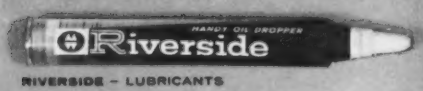
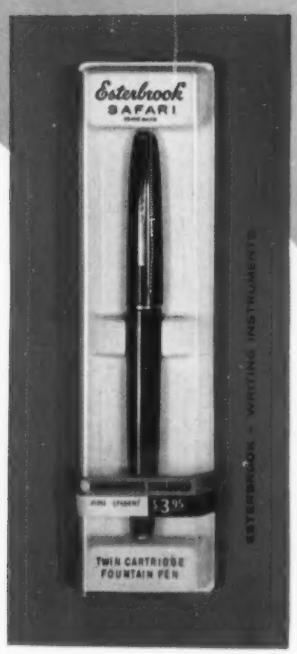








what market does YOUR product dominate?

Famous products like these capture rich markets because every important marketing factor has been perfected down to the last detail . . . including the packaging.

There's something very different about each of these TULOX packages. Swank's unique display for men's jewelry is crystal-clear heavy-wall plastic with sculptured end closures. The new handy dispenser for Riverside lubricant is light-wall and flexible for easy squeezing. Triangular shape creates high style in the Max Factor package for Mascara Wand. A trapezoid sheath gives depth and distinction to Esterbrook's quality pen presentation. I.R.C. doubly protects electronic components with a TULOX sheath for individual units, packed in a clear square tube, while Cutter found the ideal combination of protection and identification in a simple printed tube.

These are current selections from dozens of famous products attractively carried to market in TULOX Extruded Plastic packages. They give you an idea of the almost unlimited range of sizes, shapes, types, and decorative designs made possible by exclusive TULOX methods.

Furthermore, unique precision production methods permit development of these unusual quality packages, on a volume basis, at a cost often way below that of less attractive alternatives. If you would like to see your product in such good company, call upon us for a study of the possibilities.

TULOX® EXTRUDED PLASTICS, INC.

General Offices: Norwalk, Connecticut • Plants: Norwalk, Connecticut • Marion, Indiana

Semi-Rigid Seamless Plastic Packages

JEP59

DOW | **CHEMISTRY . . . *rich new vein of better packaging ideas***

Packaging our gross national product has grown to be a fifteen billion dollar business annually. Why? Because there is a constant demand for improved packaging methods in almost every phase of business. At Dow, packaging chemistry is proving to be a vital source for ideas on how to make more efficient packages at lowest costs. Some recent developments from the chemistry of packaging are shown here for your inspection.

New Low-Cost Film Gives Soft Goods Hard Sell

Soft goods manufacturers are benefiting today from Trycite*, a product that wasn't even on the drawing boards a few short years ago. This is the result of taking polystyrene's well known advantages in rigid packaging and applying them in flexible *film form.*

Trycite holds up under rough handling and retains its sparkling clarity without wrinkling . . . properties soft goods manufacturers have been looking for a long time. What's even more important, this "breathing" type polystyrene film does its job at low cost. So low, in fact, that dozens of soft goods, meat, produce, baked goods, gift wrap and window envelope makers have become satisfied users in the past year.

*TRADEMARK OF THE DOW CHEMICAL COMPANY

NEW COATING

makes good films even better

Conventional plastic packaging films can now be improved for much broader application simply by the addition of SARAN resin coating. This product of Dow packaging chemistry reduces and sometimes eliminates certain limitations of such materials as polyethylene, cellophane, polyester film, aluminum foil. A thin coating of SARAN resin on packages like those shown here keeps flavor and freshness locked inside. SARAN resin also gives polyethylene bottles and tubes added impermeability to grease, oils, acids, bases, and many organic liquids and vapors. For extra performance and extra sales, you'll find the small extra cost of SARAN resin coating well worth adding.

FRAGILE PARTS

get shockproof cradle

Now even the most intricate convoluted shapes can have custom-tailored, contour shockproofing, thanks to Pelaspan®, which is made from expanded polystyrene. Pelaspan expandable beads can be molded to fit any shape. Pelaspan assures delicate, fragile products the shockproof, lightweight packaging they need to survive shipping and handling. It's especially good when you have to get expensive products there safely—like the sensitive broadcast TV microphone in the picture. And clean, white Pelaspan makes an ideal display package after the product arrives.

Dow has geared the broad scope of its facilities and materials knowledge to serve industry's needs for better packaging. Perhaps some of the packaging ideas we're working on now would be right for your product, or your packaging problem. We'd be happy to talk to you about it soon.

DOW PLASTICS BASIC TO PACKAGING

Molding Materials • Films • Film Resins
Sheeting • Coatings • Expandable Beads

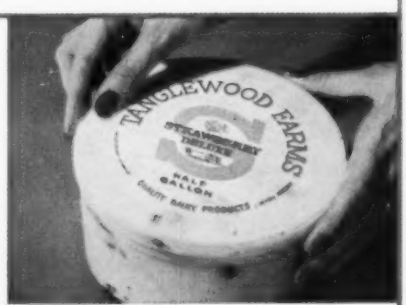
THE DOW CHEMICAL COMPANY

MIDLAND, MICHIGAN

DOW

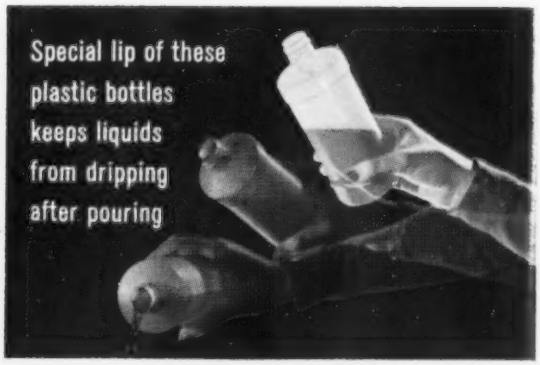
TWO MORE PACKAGES WITH THE "BIG DIFFERENCE"

THE BIG DIFFERENCE Styron® makes in ice cream containers is *visual*. Not only do these shiny rigid containers look good, they let the natural goodness and quality of the product show through. One ice cream manufacturer increased sales 50% when he switched from conventional cartons to Styron.



THE BIG DIFFERENCE SARAN WRAP* makes in food packaging is *tangible*. This satin-soft protective film looks and *feels* good . . . makes customers instinctively reach for products. SARAN WRAP has sparkling clarity, low moisture-vapor transmission and excellent resistance to fat, grease and oil. It's the same wrap millions buy in the familiar green package for daily household use.

*TRADEMARK



New type of plastic bottle by Owens-Illinois is feather-light, rugged, versatile, economical

The semi-rigid blown plastic bottles shown here are a few of the shapes, sizes and colors possible with this new Owens-Illinois process.

Semi-rigid blown plastic containers are extremely lightweight, durable, and easy to handle . . . both on your filling line and in consumer use. The special lip prevents liquids from dripping after pouring.

Yet with all these packaging and merchandising advantages, Owens-Illinois rigid blown plastic containers are low in cost . . . compare favorably with most other packages.

Find out how these containers can help you . . . call the Owens-Illinois sales office nearest you.

PLASTIC CONTAINERS
AN (O) PRODUCT

OWENS-ILLINOIS
GENERAL OFFICES • TOLEDO 1, OHIO

Label imprinting costs cut by the Tickometer

Imprint labels *as you need them* with a Tickometer ...and save on printing, and label inventories.

Hundreds of manufacturers have found that they can reduce label costs, lower label inventories, save storage space and records, and avoid waste of unusable or obsolete labels... by imprinting labels *as they are needed* with the Tickometer.

• The Tickometer prints up to 1,000 pieces *a minute*, can be set to imprint and stack a predetermined quantity. It has an impression area $2\frac{3}{16}$ by $\frac{7}{8}$ inches, gives close register. It can handle almost any type or weight of paper, or light card stock. Various models take sizes as small as 1 x 2 inches and up to 15 x 15. Feeds and stacks automatically, and can be operated by anybody.

• The Tickometer can also be used to mark, stamp, cancel, code or sign a wide variety of paper items in plant or office: cards, checks, coupons, job tickets, tags, forms, etc. —far faster than anybody can do by hand, at remarkable savings in time and effort. The Tickometer *counts* as well as prints—*so accurately that banks use it as a currency counter!* It records partial or total counts. Once you have a Tickometer, you'll find it can do many chores, at a great saving in clerical time.

• The Tickometer is rented or sold, with nationwide service from 302 cities. Any Pitney-Bowes office will discuss and demonstrate the possibilities of the Tickometer for your requirements. Or you can send the coupon for a free illustrated booklet and case studies, of actual savings.

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Counting & Imprinting Machine

Originators of the postage meter
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☐ *Send free Tickometer booklet & case studies*

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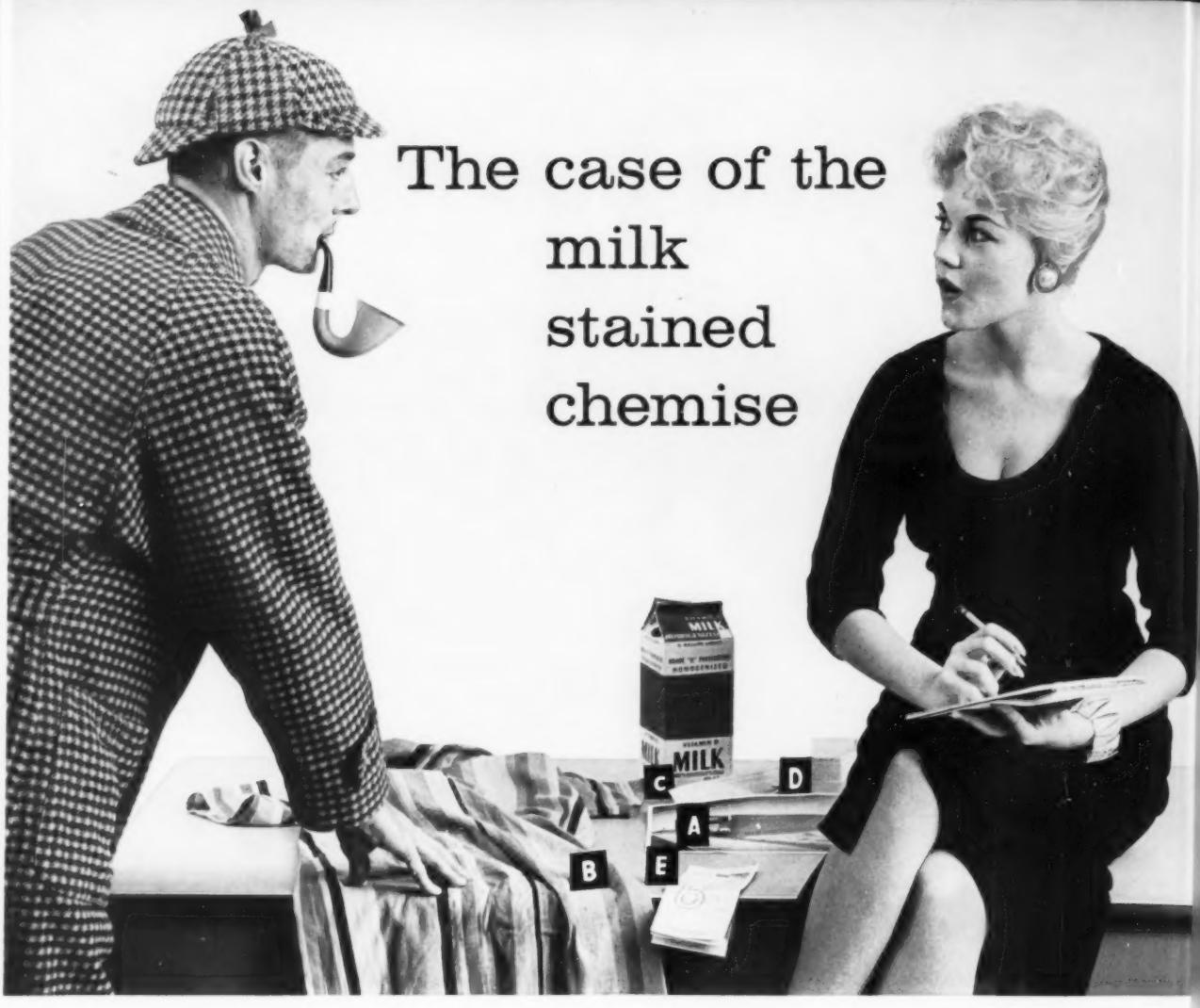

The case of the milk stained chemise

FEARLESS FULLER: Take a leg . . . I mean take a letter, Miss Watson.

MISS WATSON: Yes, Fearless.

FEARLESS FULLER: Dear Chief. The scene of my current case was the Acme Supermarket. The victim, a stunning redhead, was wearing a black silk chemise. Exhibit B.

MISS WATSON: How did you manage to get Exhibit B, Fearless?

FEARLESS FULLER: I talked her out of it.

MISS WATSON: Hmmmmmmmmm.

FEARLESS FULLER: Note the large milk stain running down the front of the dress, completely destroying its beauty.

MISS WATSON: Well, it serves her right for drinking milk in a crowded supermarket.

FEARLESS FULLER: No, Miss Watson, she wasn't drinking the milk. She was carrying a carton of milk, when the carton leaked at the bottom.

MISS WATSON: How awful. I'll bet she was mad.

FEARLESS FULLER: Several people were mad, Miss Watson. The victim, who spent a goodly amount of money in the store each week, was mad. The store owner was mad when he got the bill for a new dress. And the Creamery man was mad when the supermarket threatened to switch to a different brand of milk.

MISS WATSON: A baffling case, Fearless. Was there foul play involved? I mean, was a competitor punching holes in the Creamery's milk cartons?

FEARLESS FULLER: Not at all, Miss Watson. Upon close examination of the leaky carton I noted it was not sealed with Fuller adhesive and the milk seeped through when the victim handled it.

MISS WATSON: And . . .

FEARLESS FULLER: Naturally I recommended switching to Fuller's Adhesive #534 to solve the problem. Now they have no trouble with leakers and the case is closed.

MISS WATSON: Oh, you're wonderful, Fearless!

FEARLESS FULLER: Elementary, Miss Watson. There are few problems Fuller can't solve.

Your Fuller man is ready with the correct solutions on any adhesive problems for you, too. Contact your nearby plant.

H. B. Fuller Co.

255 Eagle Street, St. Paul 2, Minn.

ST. PAUL, MINN. • ATLANTA, GA. • BUFFALO, N.Y. • CHICAGO, ILL.
CINCINNATI, OHIO • DALLAS, TEX. • KANSAS CITY, MO.
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Fine Printing Is Inherent In Every Central Fibre Package

Fine printing — so essential to effective modern packaging—is an inherent quality in every Central Fibre product. Central Fibre packages give you maximum protection plus maximum sales appeal.

CENTRAL FIBRE FAST DELIVERIES CAN HELP REDUCE YOUR BOXBOARD INVENTORY EXPENSE

Central Fibre's fast dependable deliveries—overnight to mid-American metropolitan centers — are bringing plus profits to many firms. Packaging inventory expense is being reduced, handling and storage costs are cut.

CENTRAL FIBRE SERVES AMERICA FROM 22 CONVENIENT CITIES

Paperboards and Specialties • Assembled Partitions • Corrugated Shipping Containers • Folding Cartons and Set-Up Boxes • Egg Packing Materials • Poultry House Supplies • Mapes Molded Pulp Products.

★ Central Fibre

More Than 80 Years of Continuous Service and Progress

CENTRAL FIBRE PRODUCTS COMPANY

General Offices, Quincy, Illinois

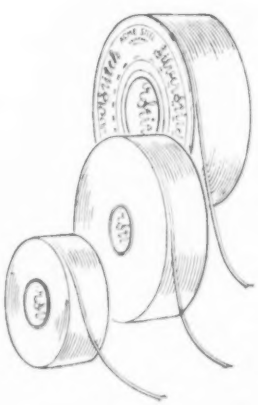
CLOSURE IDEA BULLETIN

For users of Fibreboard Boxes

Present closure methods unsatisfactory? Check advantages of wire stitching... mechanically uniform, secure closures, even with unskilled operators...stitches not affected by heat, cold, moisture...secure closure maintained even when box is wet.

Arcuate stitching method means even greater savings...gives stitches greater column strength which means greater driving strength ...allows equally strong stitches from lighter gauge of wire...switching from .020 to .017 gauge saves 12½% on wire costs. Arcuate Folder answers questions about this method.

Wire check points...if it has electro-galvanized, rust resistant finish...close size tolerance and smoothness to protect vital machine parts...is level wound to help eliminate tangles and snags...it's excellent wire. Acme Steel Silverstitch Stitching Wire checks out on all these points.



Stitcher parts orders promptly filled from nationwide network of Acme Steel warehouses and service offices...only genuine Acme Steel replacement parts reflect same high quality and craftsmanship as original parts... can be depended upon to give same long, satisfactory service. AD-154 gives tips on maintenance and repair.

Your Acme Idea Man is available as a consultant on closure problems. His intensive training, backed by Acme Steel Company's 75 years experience with closure problems, can be of real time and material-saving value to you. Call him now at the nearest Acme Steel office, or write to Dept. MDW-69, Acme Steel Products Division, Acme Steel Company, Chicago 27, Ill., for information on the complete line of Acme Steel box, book and metal stitchers.

ACME STEEL WIRE STITCHING

DO YOU KNOW

how versatile the HUDSON-SHARP Campbell Wrapper really is?

FOR PRODUCTION VERSATILITY—

You can wrap and seal with the material of your choice — for the preservation you need and sales turn-over you expect, with a Campbell Wrapper. (1) It hermetically heat seals (including for gas flush) films and foils. (2) It heat seals other materials... including waxed papers. (3) It glues and/or crimp seals still other materials. Only the Campbell Wrapper does all three! In addition, you benefit from increased production because it automatically wraps single or multiple product packs—in rows, on edge, or stacked, at speeds up to 300 units per minute!

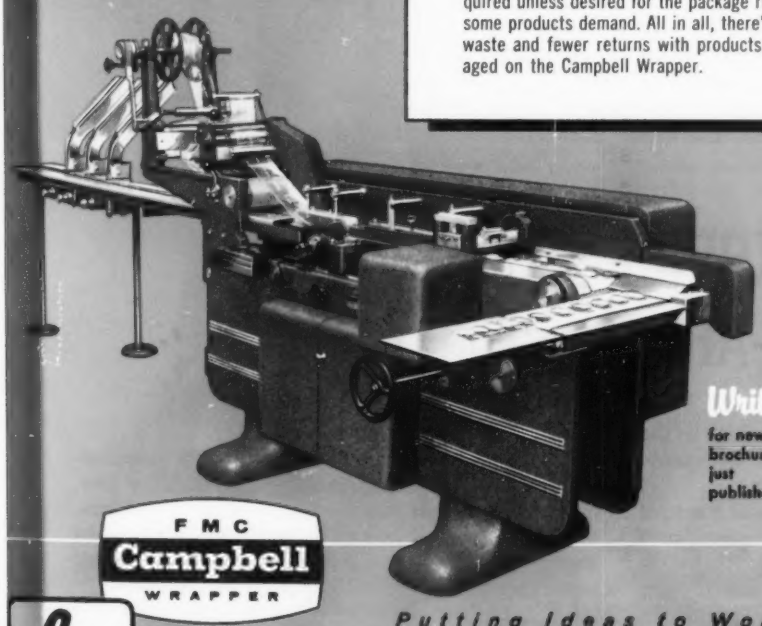
WRAPS WITH KRAFTS, GLASSINES, WAX PAPERS, FOILS, CELLOPHANE, POLYETHYLENE, PLIOFILM AND OTHER PLASTIC FILMS

FOR DIVERSIFIED PRODUCTS—

Hard or soft — crisp, brittle or fragile . . . Whatever your product's consistency, it can be packaged on a Campbell Wrapper, without crush or breakage! Shape makes little difference either, for this machine wraps products that are square, oblong, round, oval, cylindrical, flat or irregular in shape. Campbell wrappers package a vast variety of products such as:—Crackers, Cookies and other bakery items; Candies and Ice Cream; Cheese, Bacon, Franks and Table-Ready Meats; Pharmaceutical supplies; Hardware parts; Textiles; Paper Products and 1001 varied items.

FOR OPERATING ECONOMY—

Labor costs decrease with the Campbell Wrapper as in many cases it reduces help by 7 or 8 persons! Very often, one person to feed and one to pack is all that is necessary and no special skills are required. You effect important material savings, too, for this wrapper uses only the minimum necessary to cover the product and seals without costly oversize seam laps. Trays and stiffeners are not required unless desired for the package rigidity some products demand. All in all, there's less waste and fewer returns with products packaged on the Campbell Wrapper.



FMC Campbell WRAPPER

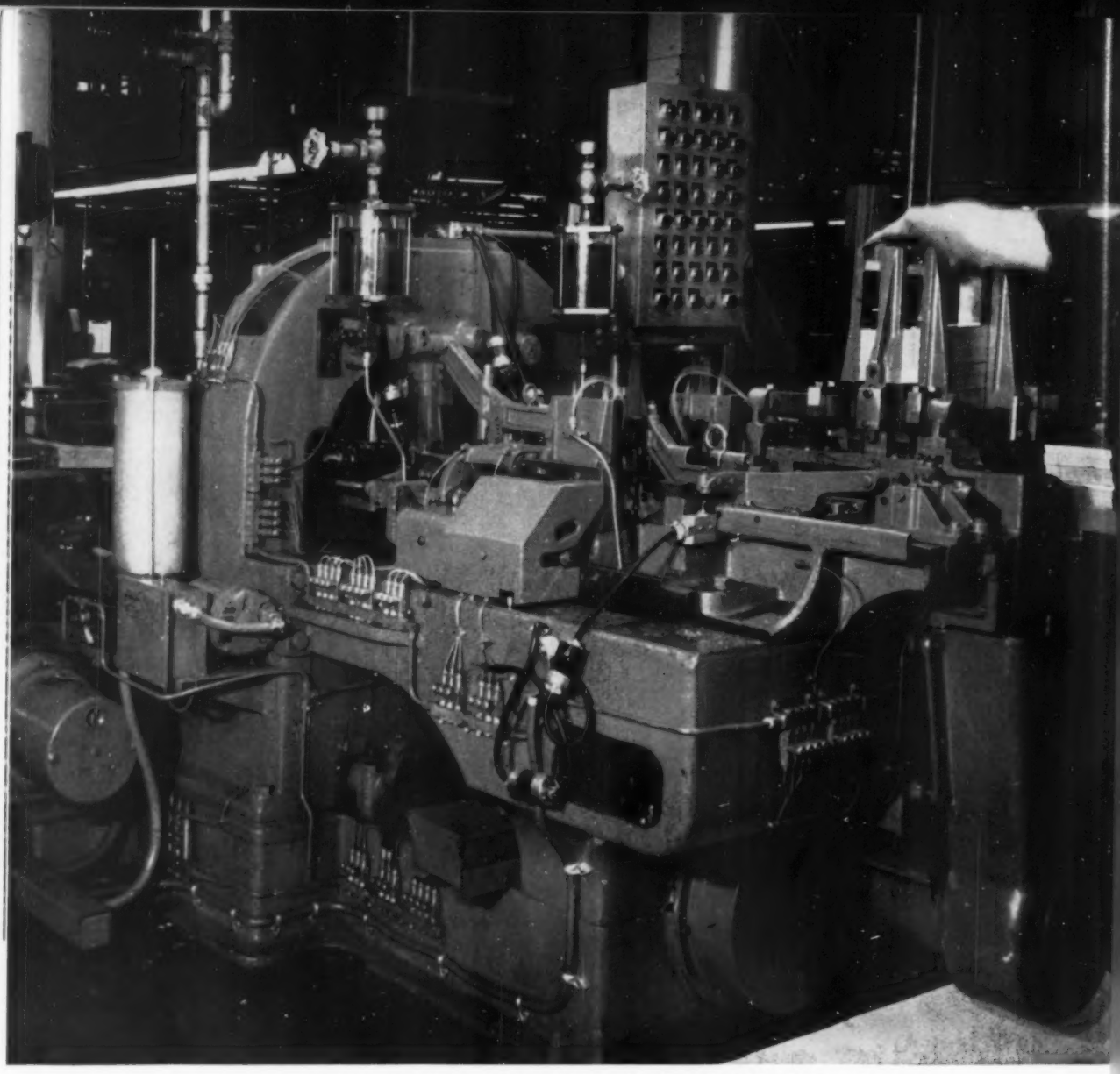
Write for new brochure just published

Putting Ideas to Work

fmc FOOD MACHINERY AND CHEMICAL CORPORATION

FMC Packaging Machinery Division

Hudson-Sharp Machine Company
1201 MAIN STREET, GREEN BAY, WISCONSIN



View from bodymaker end of recently installed can-making line in Heekin Can Company, Cincinnati.

DECADES OF EXPERIENCE . . . YEARS-AHEAD PERFORMANCE

A Hamilton 502 Bodymaker is a key machine in the new Ancor Plant of the Heekin Can Company, Cincinnati, Ohio.

Producing 300 x 407 packers type cans at a rate of 425 can bodies per minute, Heekin's current production is no strain for the Hamilton Bodymaker. It is designed to exceed 500 bodies per minute—the fastest bodymaker in operation today.

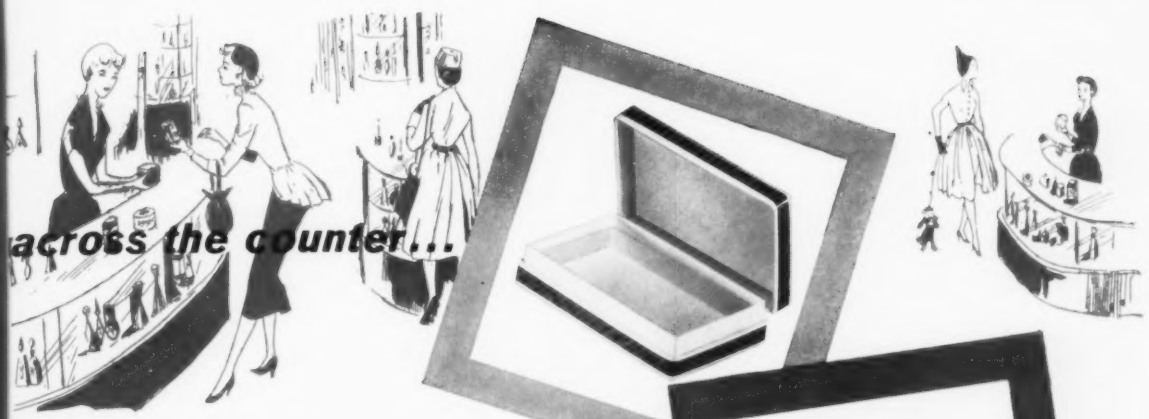
For the finest and fastest equipment for your can-making plant or department, check Hamilton now. Slitters, bodymakers and soldering machines, flangers, strip feed presses, scroll shears, curlers and testers—all are proved by decades of profitable production.

Hamilton Division Hamilton, Ohio

BALDWIN · LIMA · HAMILTON

Diesel engines • Mechanical and hydraulic presses • Can making machinery • Machine tools & general machinery

BALDWIN BLH LIMA-HAMILTON



Rowell boxes

keep fine products

on the move!

Set-up boxes in a wide range, made for Cosmetic & Drug Trade throughout the United States. Inquiries also invited from box users in other lines

E. N. Rowell Co.

INC.

BATAVIA, NEW YORK

handsome and Pilferproof in their Alcoa Aluminum caps These caps end tampering. Customers know they're getting your product at full strength and purity. This guarantee of undiluted quality attracts repeat buying. The rich gleam of Alcoa® Aluminum mirrors that quality, pulls pick-me-up sales. You'll be surprised at how favorably Pilferproof caps compare in price with the closures you're now using. For full information, call your local Alcoa salesman, or write: Aluminum Company of America, 1729-F Alcoa Building, Pittsburgh 19, Pennsylvania.

ALCOA ALUMINUM CLOSURES

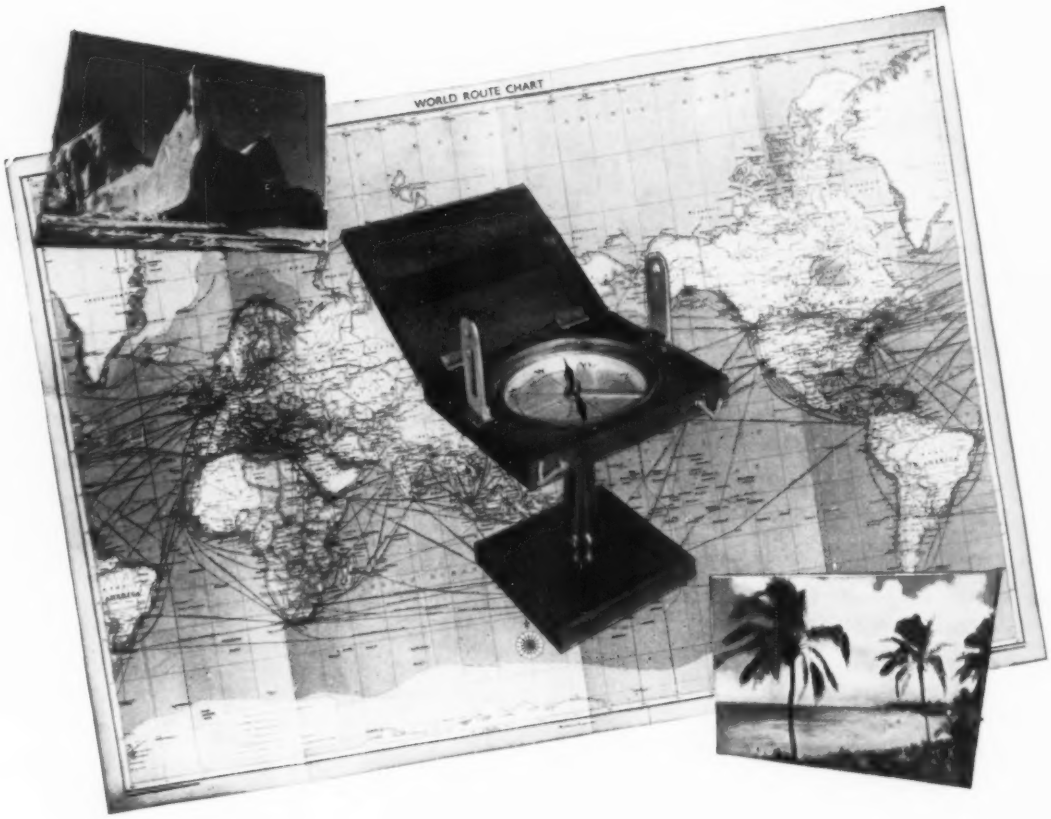
For exciting drama watch "Alcoa Theatre," alternate Mondays, NBC-TV, and "Alcoa Presents," every Tuesday, ABC-TV

No "leakers" with tailor-made Roll-On Pilferproof Caps. Alcoa's Roll-On machine rolls bottle threads into each blank cap for perfect fit, hermetic seal. It embeds bottle lip firmly into liner. Cap is never turned, liner is never scored.

Telltale locking bands reveal tampering at a glance. Caps cannot be removed without breaking the small bridges that seal bands and caps together.

Caps open easy, reclose tight. Bridges that join locking bands break with a slight twist. Precision Roll-On threads unscrew smoothly, make a snug, leakproof reclosure.

They top off bottles brilliantly. Pilferproof caps can be finished in any color or lithograph patterns, take embossing and printing. "Shaving" highlights them brightly.



HERE, THERE AND EVERYWHERE

Through world-wide connections we keep our finger firmly on the pulse of packaging: on merchandising trends and techniques, on wrapping methods and machinery. This continuous stream of information, coupled with our wide experience, enables our scientists to *anticipate* packaging needs.

MXXT cellulose film — *the most moistureproof packaging film in the world* — is one result of our extensive research and development programme. Another is our range of polythene-coated cellulose films, ideal for the "visible" packaging of liquids, powders and other "awkward" products, and for vacuum- and gas-packaging. We also make a wide variety of polythene films, and are able to supply non-moistureproof cellulose film up to 81 inches wide.

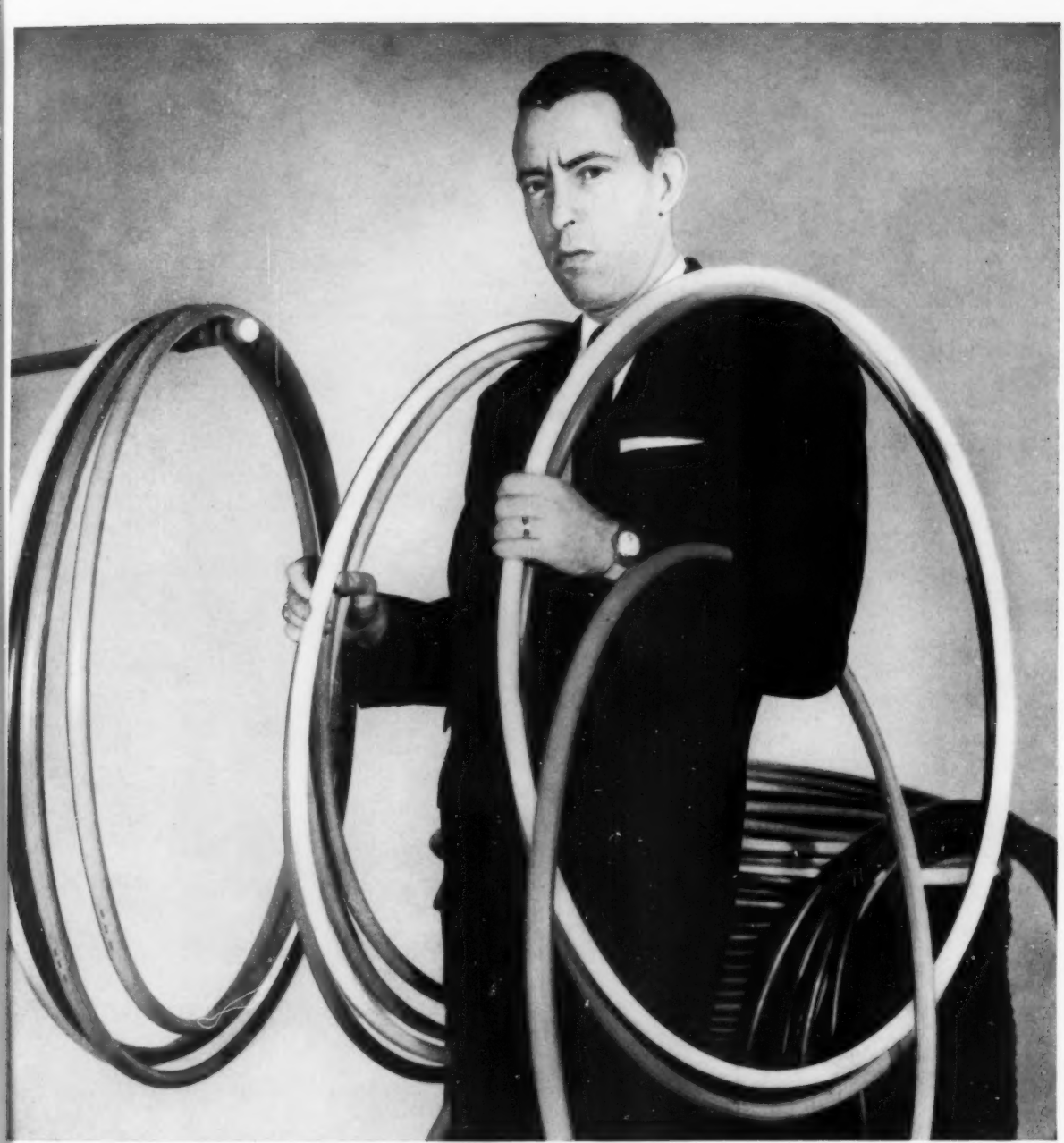
We invite you to get to know the many types of transparent films we produce. Write to us today.

BCL

BRITISH CELLOPHANE LIMITED

Henrietta House, 9 Henrietta Place, London, W.1, England.

"Cellophane" is the registered trade mark of British Cellophane Limited in the following countries: The United Kingdom, Jersey and Guernsey, Commonwealth of Australia, Ceylon, Cyprus, Denmark, Eire, Federation of Malaya, Federation of Rhodesia and Nyasaland, Gibraltar, Hong Kong, Iceland, India, Jamaica, New Zealand, Pakistan, Singapore, Trinidad and Tobago, Union of South Africa.



Mister . . . YOU have an INVENTORY PROBLEM!

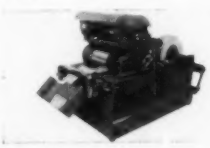
If you're going around in circles—stuck with last year's fad—you know what it means to be caught with a large inventory.

When it comes to labels . . . you don't have to be caught with a costly inventory of preprinted labels if you use the KIMBALL Roto Kimco Labeling System.

If you have changes from time to time on your labels, instead of ordering them completely printed from an outside source, you can make these changes yourself quickly—and then run the exact number and kind of labels you require! With the KIMBALL Roto Kimco Labeling System you are never caught with a huge supply of costly obsolete labels.

THE ROTO KIMCO

The Kimball Roto Kimco imprints on all types of Kimball label stock—heat-seal, pressure-sensitive, gummed, ungummed, as well as heavy board—from one to 23 lines of copy.



KIMBALL SINCE 1876

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A. KIMBALL COMPANY, REWE ST., BKLYN. 11, N. Y.

Product Identification and Integrated Data Processing Specialists

Offices in Principal Cities in U.S.A. and Canada

A. KIMBALL, LTD., 85 Advance Road, Toronto 18, Canada

☐ Please send literature.

☐ Please arrange FREE demonstration.

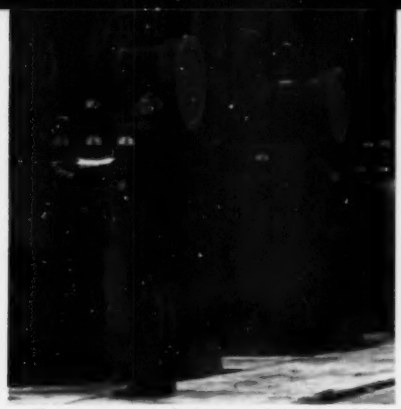
Name_____

Company_____

Address_____

529
528
527

New $36 million, hot strip mill provides quality strip steel, basic raw material for tin plate.



X-ray gage controls help regulate this cold reducing mill which operates at speeds to a mile-a-minute.

New annealing furnaces heat strip steel to obtain optimum uniformity of physical properties.

The temper mill kneads strip steel, then smooths it to meet hardness and surface requirements.

Electronic controls in J&L's No. 3 line coordinate fourteen separate tin plating operations.

X-ray coating-thickness gages assure tin coatings to a precision of ± .0000006 inches.

Enough tin plate for over 3.5 billion #2 cans

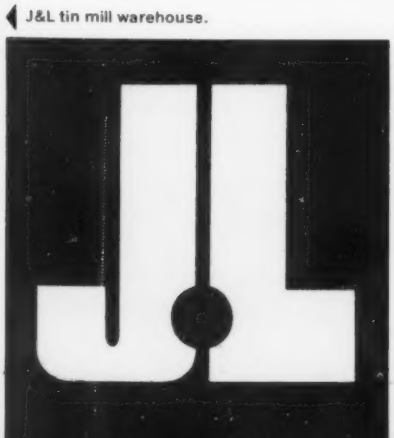
will be produced this year by J&L, who has invested over $42 million to expand and modernize its tin plating facilities since 1947.

Now—with an annual plant capacity of almost 600,000 tons of tin mill products and with almost fifty years experience as a leader in the field—the new J&L is equipped to deliver a product and service which are unsurpassed in the industry.

Jones & Laughlin Steel Corporation

PITTSBURGH, PENNSYLVANIA

◀ J&L tin mill warehouse.



Automatic pin-hole detector examines sheet tinplate for pinhole defects in the coating down to .001".

A 15,000-lb. coil leaves the line at Aliquippa, Pa., ready for packaging and shipment to a J&L customer.

FOUR REASONS WHY "MYLAR" IS THE IDEAL WINDOW MATERIAL...

1. Will not warp, shrink or crack

2. Resists tears and punctures

3. Extends shelf life

4. Offers 100% clear transparency

Carton windows of "Mylar" give clear transparency and lasting protection to products like these

You can give your product protection *plus* the added sales appeal of visibility, when you package in window cartons made with strong, durable Du Pont "Mylar"* polyester film.

Windows of "Mylar" have excellent tear and puncture resistance, exceptional impact strength, long life. "Mylar" is unaffected by grease and oils. And its superior dimensional stability prevents box warping. In addition, "Mylar" gives your window boxes the advantages of brilliant, sales-winning transparency.

Be sure to specify windows of "Mylar" on your next carton order.

For the full story, call your carton supplier or write: E. I. du Pont de Nemours & Co. (Inc.), Film Department, Wilmington 98, Delaware.

*"Mylar" is Du Pont's registered trademark for its brand of polyester film. Du Pont does not make window boxes.

DU PONT
REG. U.S. PAT. OFF.
BETTER THINGS FOR BETTER LIVING
. . . THROUGH CHEMISTRY

DU PONT MYLAR® POLYESTER FILM

Background for Packaging

Notes, quotes and comments. An editorial feature

Competition for consumer dollar becomes tougher for packaged goods, because a steadily larger percentage is being spent on services (dry cleaning, laundry, repairs, medical care, utilities, etc.) In 1947 services took 31.1% of personal consumption expenses. Ten years later they took 37.4%. During the recession year of 1958, indications are that they moved up to 38.6%. Thus, figures on consumer spending must be interpreted as to what they mean to packaging.

Watch the change in drug-store packaging requirements. One out of every three drug stores now is self service, compared with only one in 10 six years ago. The trend is even stronger in chain drug stores, where, according to an *American Druggist* study, 53% have gone self service. The need for informative, attractive, self-selling packages applies not so much to drugs as it does to the wide range of general merchandise which these stores sell today.

Plastics industry fears exposure of trade secrets under the new Food Additives Amendment to the Food & Drug Act. After weeks of argument with F&DA authorities, The Society of the Plastics Industry won concessions on a few points, but got nowhere on its plea to restrict publication of data. F&DA insists it must identify publicly both the migrating substance and its parent components, if any. The SPI did, however, win concessions on the definition of a "safe" material and on certain technicalities with respect to petitions and notifications.

Aerosol users are impatient at high costs and slow-moving developments. Many say present average 60% price differential of glass aerosols over metal is unrealistic, point out that the coated container could get into really big market of under-$1 items (toothpastes, many foods) if differential were lowered to 20%. Users urge more speed in perfecting low-cost drawn aluminum aerosols and even investigate new materials such as impregnated fibre cans for some products. Meanwhile, aerosol suppliers see opportunities for new applications in higher-pressure containers (up to 110 p.s.i.) and better metal-can coatings to handle water-base products.

Big plans for aluminum were disclosed at Chicago Packaging Conference by *F. J. Close*, Alcoa, who predicted that aluminum packaging applications will double in next five years, raising consumption in this field to over 400 million pounds. A 15% increase, to 220 million pounds, is forecast for this year—which will double the 1953 consumption. *Bright hopes:* Cans, aluminum bottle and jar closures, foil-lined corrugated boxes, formed foil unit and cook-in containers, hermetically sealed foil-board folding cartons, ultrasonic welding.

Look for laundry products and household cleansers in new formulations which will permit more aesthetic packaging. Present powders, granules and liquids limit packagers to containers with a heavy-duty look. New dust-free products, easy-dispensing jells in collapsible tubes and fractional units in capsules or soluble bags will permit more packaging that will dramatize the work-free quality of the product.

What do big companies do when sales slump? They spend more for advertising. The 100 leading advertisers altogether spent 5.6% more in 1958 than in 1957. Five of the six top ad spend- [*Continued on page 44*]

taste
tingler.....
Old
Fashioned
COOKIES

BRITE-PAK
ENAMEL COAT

More and more packagers are *upgrading*
with Enamel Coat bleached board
to get more taste-tingle for better sales.

Enamel Coat's gleaming surface can't be beaten
for full color process printing . . . for picturing
your product so tastily it sells on sight!

And you can see why women prefer and re-order
the clean Enamel Coat package. Brite-Pak bleached board
is virgin white on both sides and all the way through.
It looks so much *more sanitary* than old-fashioned
containers with their drab, gray interiors next to the product.

Brite-Pak Enamel Coat is economical, too.
See how easily *you* can upgrade your packaging
and stay ahead of competition.

For full details, write
to Bleached Board Division,
West Virginia Pulp and Paper Company,
230 Park Avenue, New York 17, N.Y.

West Virginia
Pulp and Paper

ers last year were big packaged-goods companies (Procter & Gamble, General Foods, Colgate-Palmolive, American Home Products, Lever Bros.). In fact the only non-packaged-goods companies in the top 10 are the three big automobile producers, with General Motors ($47½ million) ranked second after P&G ($58½ million).

Polyethylene's future in packaging depends largely on overwrapping developments, industry authorities feel. Predicting annual consumption of 400 million pounds of resin in films and coating by 1963 (double the present figure), *T. W. Sharp*, Bakelite, sees overwrapping as the biggest area for development and indicates that major targets will be baked goods, where a 20-fold growth in the next four years is foreseen, and frozen fruits and vegetables. *Note:* Those in the know say that the first switch to polyethylene as a cigarette-package overwrap is close at hand.

Background for Packaging

Strong position of the supermarket is reaffirmed by latest annual survey by *Super Market Merchandising*. Industry sales in 1958 hit a record $28.6 billion, up 13.8% over 1957 despite recession. Supers now account for 64% of nation's total retail grocery sales. *Note:* The average newly opened market in 1958 did 8.1% of total sales in non-foods, although the average of all supers was 5.2%. Does better planning of new stores specifically for non-foods direct more traffic there?

The set-up box holds a solid position in department stores. A recent survey of executives in 42 leading department stores, conducted by the National Paper Box Mfrs. Assn., shows that 98% of the stores use set-up boxes to some degree for in-store packaging; 75% use set-up boxes for at least half the items they package, and 48% use set-ups exclusively. Reasons cited were "building store prestige," "easy handling," "creating 'take-with' appeal" and cutting down on losses from breakage and mishandling. The study also revealed that decision on the quality of the store's package always is a top-management responsibility frequently involving the policy committee.

[*Continued from page 41*]

Thought for this month: "It would be nice if people could introduce new ideas without attempting to discredit all efforts to date. Latest example comes from a designer who says that 'the great majority of packages being produced today are not effective sales tools in the modern supermarket.' Granting the fact that there is always room for improvement, we can't think of any field in which there has been more continuous and intelligent development over the years than the packaging field."—*Lawrence Drake*, editor, *Chain Store Age*.

What happens to packaging in a controlled economy is revealed by examination of a group of Russian drug packages recently collected by American drug executives. The packaging is described as crude and shabby by our standards; it reflects the use of a large amount of manual labor on the packaging line. Drugs in Russia are subsidized by the Government and obviously packaging is regarded as an unnecessary expense. Yet, in terms of purchasing power of his earnings, the Russian worker must pay about four times as much as the American for a package of penicillin. The Russians, it is apparant, have not yet discovered that good packaging pays off in economy.

A plea for research is voiced by the president of the Folding Paper Box Assn. of America. To the association's annual meeting, *President J. N. Andrews* said: "We must find new uses for *our* products if we are to improve our rate of growth. . . . We cannot 'gimmick' our way out of declining profits. Improved products, produced economically and sold at realistic levels, provide the only sound and sure answer." Research and product development need management attention and financial support if folding-box makers are to resist successfully the competitive inroads of newer package types, Mr. Andrews stressed.

. . . and he wed the Lady Polyethylene

In days of yore, marriage, romantic as it may have been, must have had its problems, too. Today, creating a film marriage is also a delicate undertaking. Just as in real life, each partner brings to the union certain qualities that give character and purpose to the whole. Our function as matchmaker requires an intimate knowledge of the personalities involved and the ability to join their best capabilities successfully.

POLY-COATED FOIL is such a wedding. The groom—the tough, masculine, knight in shining armor—Aluminum Foil. The bride—Polyethylene—his clinging feminine counterpart, adding her unique qualities to the union. The result—a formidable, flexible shield for your product—tough, heat-sealable, moisture-vapor proof, machinable.

Poly-coated Foil is widely used for automatic packaging of soap-mixes, jellies, dehydrated foods, capsules, tablets, and other highly hygroscopic products. A new and growing use is for vending machine products. It is supplied either plain or paper-backed, printed or unprinted, in rolls or pouches.

Write for our FREE, 32 page, comprehensive Machinery Manual on Poly-Coated Films.

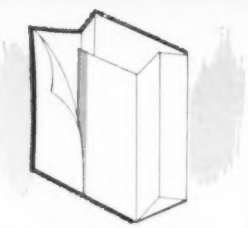
print-a-tube
COMPANY
114 Essex Street, Rochelle Park, N. J.

*Du Pont Reg. Trademark

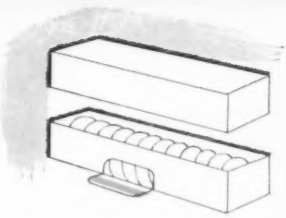
SPECIALISTS IN MODERN FILM MARRIAGES FOR THE AUTOMATED PACKAGING OF POWDERS, LIQUIDS AND SOLIDS. OTHER EXTRUSION COATED 'PATCO' FILMS INCLUDE: POLY/CELLOPHANE; POLY/POUCH; POLY-ON-MYLAR*; CELLO/POLY/CELLO.

HOW THERMOGRIP ADHESIVES ...Cracked six production bottlenecks

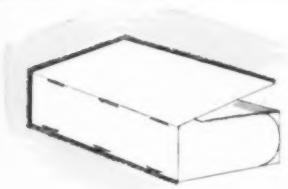
FASTER CLOSING, immediate handling, fewer closing lines on cigarette cartons. Carton can be opened without tearing for tax stamping. Production increased. Long pressure-drying sections avoided.



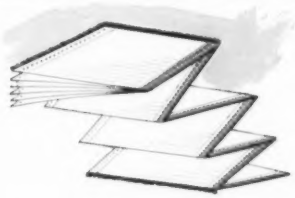
FAST SETTING, bag makers avoid squeeze-out — find increased machine speeds, less waste, improved product and production savings of 8-20% are just part of the gains made with THERMOGRIP.



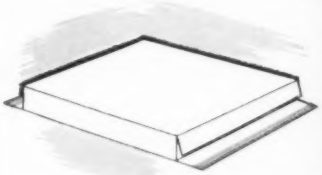
POSITIVE CARTON CLOSURE. THERMOGRIP on die-cut side flap sets fast, holds cover in place — eliminates 30 feet of pressure section — affords immediate handling — bonds foils and plastic coatings, too!



MULTIPACK MACHINE design is more compact, eliminates long pressure section, provides cleaner, more controllable adhesive system, immediate automatic removal of glued packs.



REGISTRATION ACCURACY for convertors. Production doubled, staples eliminated with THERMOGRIP on multiple part continuous business forms, saves many dollars per hour.



BEAT FIGHT in stiff boards on book and waxed food cartons with THERMOGRIP. Better control, easier to use, more compact adhesive system and good bond in split second.

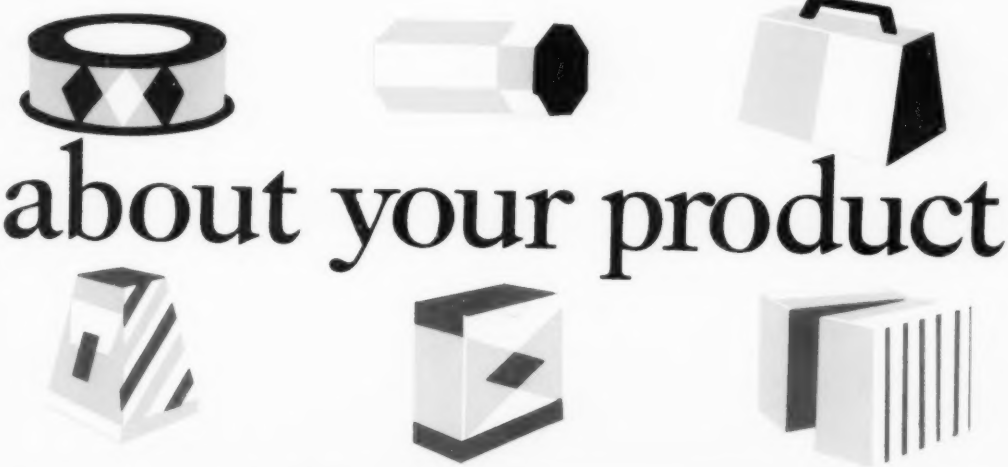
Instant bond on wide range of materials with THERMOGRIP adhesive gives you a control over tricky gluing jobs — lets you speed up operations. It's the only adhesive which comes in a dry, cord-like form for ease of handling and application.

In addition, you have a choice of six different applicators that can apply THERMOGRIP in dots, dashes or unbroken strip — to continuous webs or individual items. These are highly engineered units backed by more than 50 years' experience in the design and service of dependable production machinery.

Many firms are making spectacular dollar production savings. Others enjoy increased speed and cleanliness. Some jobs on hard-to-stick materials are being done with THERMOGRIP that are not possible any other way. Investigate THERMOGRIP today and see whether its many benefits can be yours! UNITED SHOE MACHINERY CORPORATION, 140 Federal Street, Boston 11, Mass., LIberty 2-9100.

United

Let your package say nice things about your product



CHAMPION PAPERS

Colorcast® DRUM FINISHED

BOX WRAP

Colorcast®
DRUM FINISHED

BOX WRAP

The eye appeal of COLORCAST Drum Finished Box Wrap in its variety of colors keeps products moving, expresses quality and luxury to your customers.

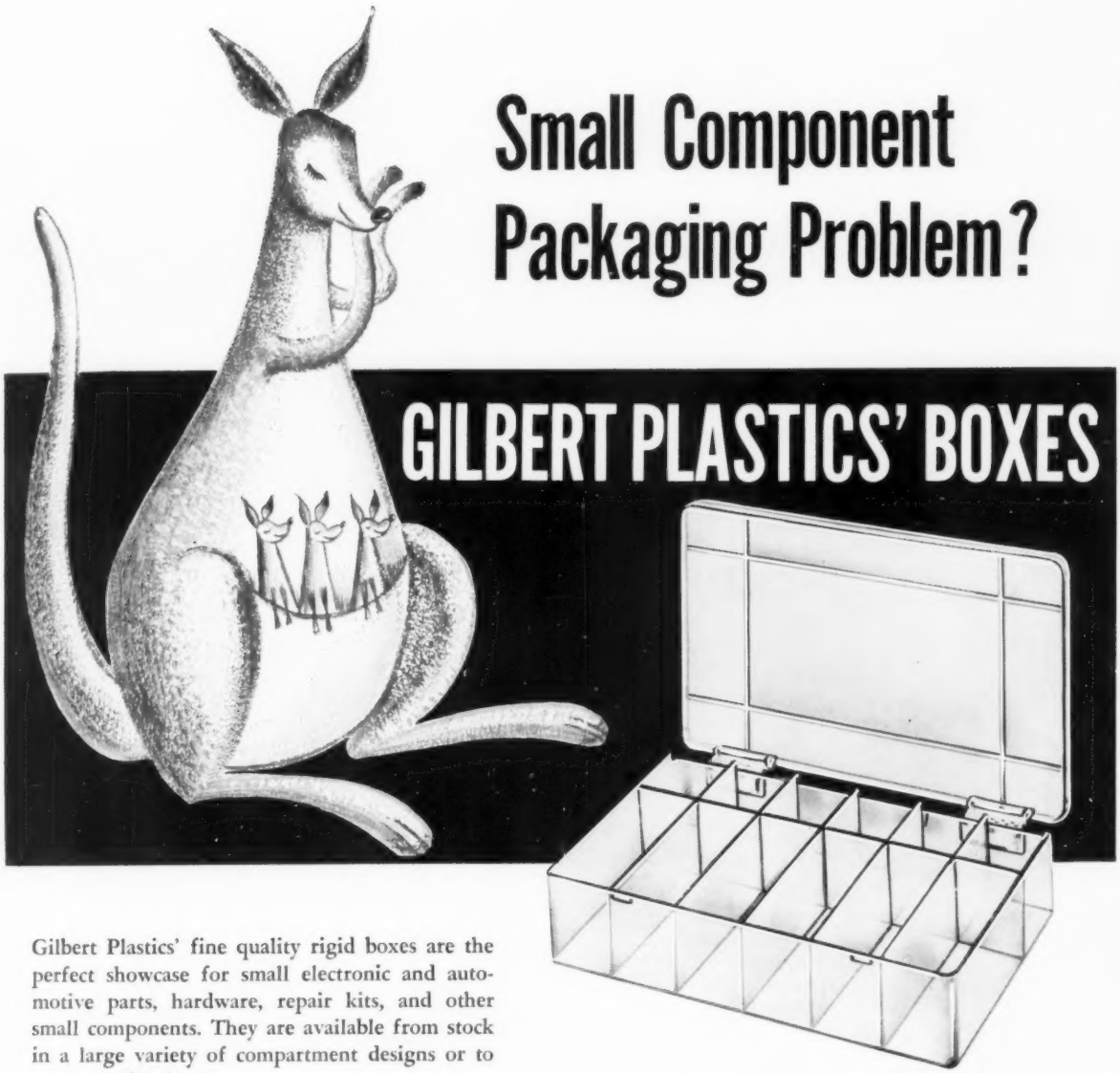
Durable, light-fast, high gloss COLORCAST is ideal for packaging, subject to repeated handling and requiring long shelf life. COLORCAST Box Wrap is available in a wide range of colors regularly carried in stock, including pastels — pink, green, blue, and yellow — as well as rich, deep solids in red, yellow, green, brown, blue, dark red, black, and bright white. Write for new sample book and full sheet samples for experimental use. Better yet, send us a sample of your present box wrap for color matching in our modern laboratory.

Colorcast Box Wrap is made exclusively by—

THE CHAMPION PAPER AND FIBRE COMPANY

HAMILTON, OHIO

Small Component Packaging Problem?



Gilbert Plastics' fine quality rigid boxes are the perfect showcase for small electronic and automotive parts, hardware, repair kits, and other small components. They are available from stock in a large variety of compartment designs or to your specifications.

Gilbert Plastics' boxes provide 100% visibility . . . are lightweight and extremely durable . . . and are approved for Military specifications. They facilitate inventory control . . . selection of small parts . . . and reduce shipping costs. Your brand name or trade-mark can be imprinted on the cover.

CONSULT OUR ENGINEERING DEPARTMENT

Our staff of packaging designers is always at your service to help solve all of your plastic packaging problems.

Write today for samples, catalog and price list.

GILBERT PLASTICS, INC.

Manufacturers of Fine Plastic Packaging

Executive Offices & Factory: BORIGHT AVENUE, KENILWORTH, N. J. • BRidge 2-6400
Canadian Distributor: TWINPAK, LTD., 6525 Somerled Ave., Montreal, Quebec.
British Affiliate: I-to-I PLASTICS, Bridge Close, Romford, Essex, England.

CELLU★FIBRE

METAL-END PACKAGES SPELL PRODUCT SALES MAGIC

For food, beverage, specialty and dairy product manufactures, inexpensive Cellu-Fibre spiral wound metal end cans offer a bright new world of opportunity. What ever your product or problem, Cellu-Fibre can provide functional and decorative packaging – custom designed manufactured on modern high speed equipment – to your exact specifications.

Let us show you how Cellu-Fibre craftsmanship and imagination can give your product's package extra beauty and utility that will pay off in extra sales. We invite your inquiry –

Cellu-Fibre offers these advantages: *Protective linings inside and out Variety of dispensing tops • Ideal for dry, semi-liquid and liquid products Clean and neat – completely sanitary • Special tight pack, non-stick Fi-Cel cans for ice-cream packaging*

CELLU★FIBRE
CAN CORPORATION
A Subsidiary of Niemand Bros., Inc.

45-08 94th Street, Elmhurst 73, Long Island, N. Y.

Capsule facts for packaging suppliers about

MODERN PACKAGING ENCYCLOPEDIA ISSUE for 1960

(to be published November, 1959)

Now accepting space reservations for next edition!

What it is The thirty-first edition of the *only* standard annual manual on packaging principles, procedures, techniques, materials, container types and equipment.

What's in it More than 800 pages. One hundred thirty-nine "how to" articles including many new features on materials, equipment, packaging production techniques and merchandising strategy. Charts. Tables. Graphs. Check lists. 100-page Buyers' Directory. Detailed information on the planning, designing, selection, production and filling of packages. "Tell-all" advertising by packaging suppliers. Review of all packaging developments during previous twelve months.

What is its "life span" One year. Because of the fast-moving nature of packaging developments, each new edition contains a considerable body of entirely new material that supersedes the content of the previous issue . . . and remains the standard reference work until it, in turn, is made obsolete by the next.

Who gets it The full, record-high, paid circulation of *Modern Packaging* magazine. (Publisher's estimate for November: 23,000.)

Who are these subscribers The key packaging men in the major industries (food, drugs, chemicals, paints, beverages, cosmetics, etc.) that produce the vast bulk of the country's packaged products.

How they use the book a) To get *completely current* working data on every phase of packaging—as problems occur in their day-to-day packaging work . . . b) To check sources of supply . . . to find out what's available . . . or what's *alternative* . . . c) To select *new* or *alternative* ways of packaging products.

Evidence of intensive use In first five months after publication of last edition, fifteen thousand requests from readers were received for the various pieces of product literature reviewed in the issue. These requests continue to be received at a steady weekly rate during the "life span" of the issue.

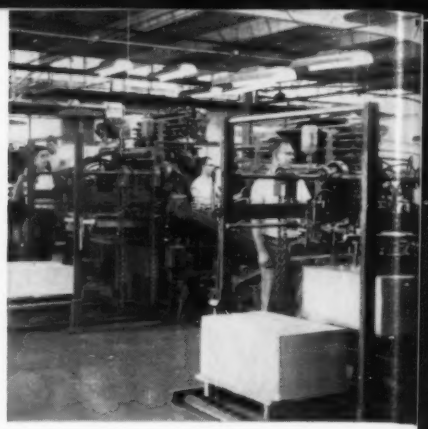
Who advertises in it Just about all packaging suppliers. Each annual edition carries more advertising to packagers than any other publication anywhere on earth.

What kind of advertising works Only one kind: "catalog-type" advertising that gives full and detailed particulars about your products and services. Almost any other kind of advertising message belongs in the regular monthly issues of the magazine. Use Encyclopedia space to "wrap up" your product's complete sales story with enough facts to enable a buying decision to be made.

When is advertising material due Copy requiring proofs is needed by August 1. Complete plates by August 8. Catalog inserts by August 28.

How to position your ad Each advertiser can select the editorial section that "ties in" with the subject matter of his advertisement.

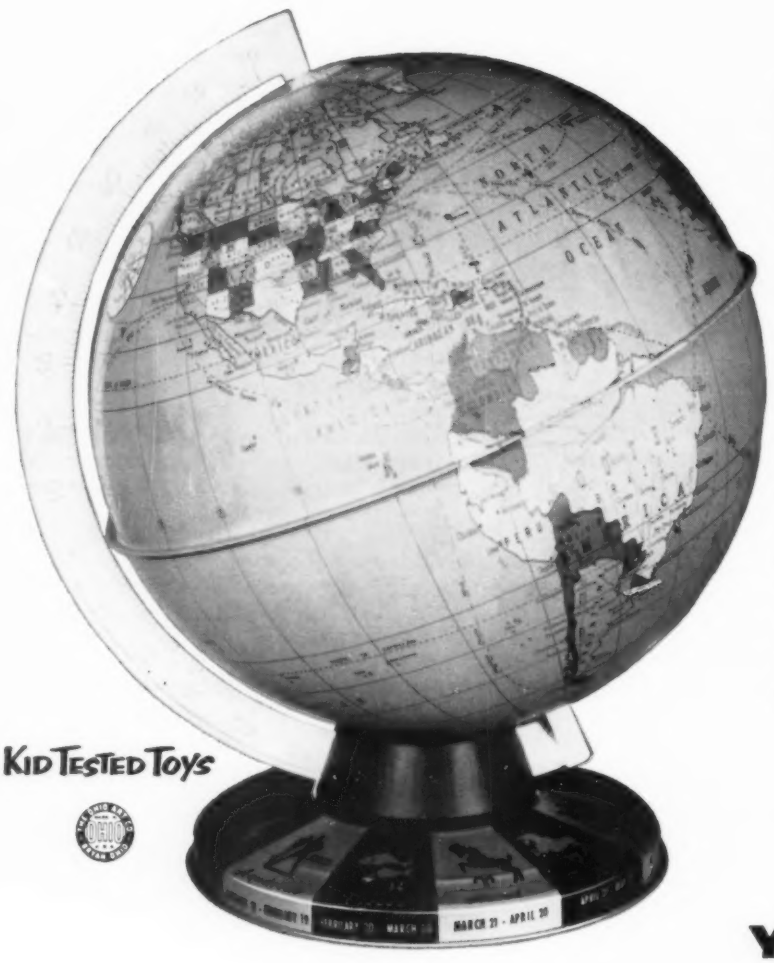
When should space order be placed The earlier the better since advertising is given placement preference within each editorial section on the basis of time of receipt of order. An urgent suggestion: mail your order in *now*. We'll send you promptly an Advertising Position Sheet on which you can indicate the specific editorial section in which you wish your advertisement to appear. MODERN PACKAGING, 575 Madison Avenue, New York 22, New York.



Ohio Art pressmen *are busily lithographing Youngstown Black Plate that will be subsequently blanked and formed to produce their line of educational World Globes.*

Accent on Excellence

Youngstown black plate



KID TESTED TOYS

This attractive World Globe—an all-time best seller to homes with growing children—is produced by 50-year-old Ohio Art Company of Bryan, Ohio.

These Globes are of durable metal construction and lithographed in striking full colors. The raw material used? Why Youngstown's Black Plate, of course. It's a quality steel that Ohio Art has found lithographs, draws, forms and blanks to perfection—helps keep the quality of their products at a high level.

Wherever steel becomes a part of things *you* make, the high standards of Youngstown *quality*, the personal touch in Youngstown *service* will help you create products with an "accent on excellence".

QUALITY YOUNGSTOWN SERVICE

Youngstown
Youngstown, Ohio

THE YOUNGSTOWN SHEET AND TUBE COMPANY

Carbon, Alloy and Yoloy Steel

The fastest-moving packages on today's supermarket shelves don't just happen . . . they're *engineered* to do the job of meeting today's competition.

The reason so many are engineered by Milprint is because only Milprint can draw on over fifty years of experience in planning, designing and producing all types of packaging. For the widest variety of packaging materials and printing processes available anywhere, call your Milprint man—first!

Rotogravure Printed Foil Can Label

Rotogravure Printed Polyethylene Bag

Rotogravure Printed Foil Overwrap

Rotogravure Printed Foil Canister Label

Milprint *makes packaging that makes sales*

GENERAL OFFICES, MILWAUKEE, WISCONSIN · SALES OFFICES IN PRINCIPAL CITIES

Printed Rolls, Foil, Cellophane, Glassine, Polyethylene, Saran, Acetate, "Mylar"®, Pliofilm, Vitafilm, Laminations, Extrusions, Folding Cartons, Bags, Lithographed Displays

®Reg. U.S. Pat. Off.

This insert lithographed by Milprint, Inc.

Add "Impacts" to your sales

EXTRUDED ALUMINUM CANS from CLARKE

Engineered to your specifications

Clarke rigid aluminum cans are the perfect answer for those difficult-to-package products.

They're seamless and strong . . .

. . . lighter to ship—40% lighter than conventional tin cans of equal size . . .

. . . available in a wide range of shapes and constructions—in diameters up to 3" and lengths up to 25".

For free samples and additional details, write, wire or phone today.

"A Clarke can is a compelling invitation to buy"

CLARKE CAN CO., INC., E. York & Thompson Sts., Phila. 25, Pa. GArfield 6-3370

CLARKE CAN OF PHILADELPHIA

The way to a woman's cart is through products wrapped in SUPER DYLAN® film

No buyer is more particular than a woman! There is a way to help her choose *your* product. Show it to her! Package it in the clearest, high-density polyethylene film—SUPER DYLAN film, a product of Koppers.

This all-new packaging material is ideal for paper products, frozen foods, baked goods, tobacco products, cereals, knitwear, textiles. SUPER DYLAN makes the most economical, crisp, transparent overwrap film.

SUPER DYLAN film can be boiled or frozen; adds longer shelf life to your products; has excellent low temperature properties; and it tears in a straight line without tear tape.

SUPER DYLAN film can be heat-sealed. It handles easily in bag-making and overwrapping equipment because it's non-blocking, resists stretching and has sufficient stiffness for push-feeding.

Koppers Company, Inc.
Plastics Division, Dept. MPG-69
Pittsburgh 19, Pennsylvania

Please send me a free sample, and additional information on SUPER DYLAN polyethylene film.

Name _____

Firm _____

Street _____

City _____ **Zone** _____ **State** _____

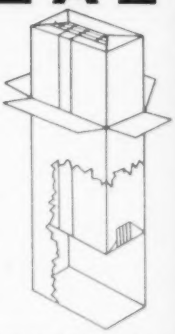
Offices in Principal Cities · In Canada: Dominion Anilines and Chemicals Ltd., Toronto, Ontario

KOPPERS PLASTICS

DYLITE® expandable polystyrene, DYLENE® polystyrene and DYLAN® polyethylene are other fine packaging plastics produced by Koppers Company.

KOPPERS

PNEUMATIC'S NEW FIN-SEAL PACKAGE



- Provides protection of heat-sealed envelope plus rigidity of carton.
- May be filled by weighing or volumetric methods — to any height up to 98% of capacity.
- Inner bag made with face-to-face fusing of currently used thermoplastic coated materials.
- Entire package produced on Pneumatic Double Package Maker combinations.

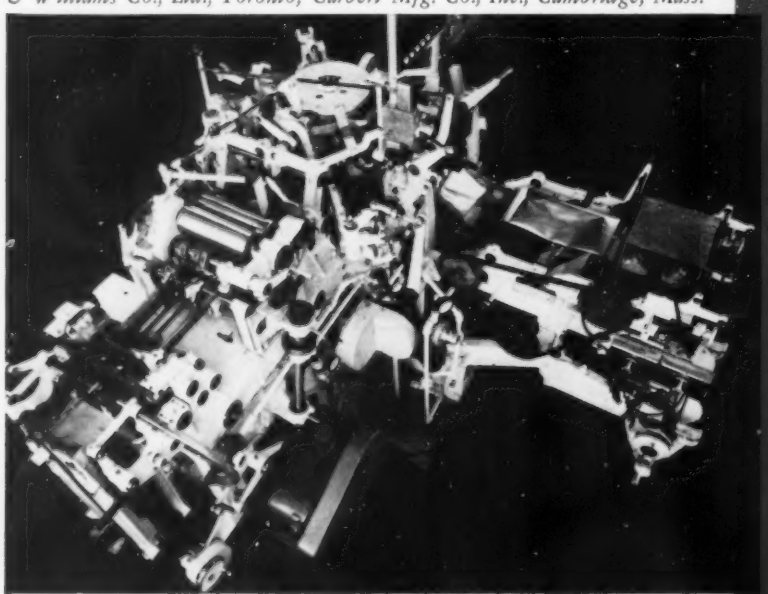
A container which has proved itself highly effective under most demanding conditions, the Fin-Seal package offers moisture protection within full tested range of lining materials.

The symmetrically made inner bag is formed with heat-sealed "fins", centrally located on one side, the bottom, and the top. Top and bottom fins are crimped under pressure with our unique plunger-action device for hermetically sealing folded side seam ends. Vertical or body seal on inner bag is in dead center to allow for mechanical spreading of lining top, during closure operations, without interfering with vertical seal.

This package consisting of a heat sealed protective packet "glove-tight" within a carton provides a means of shelf display and space for printed messages including brand name, recipes, etc. It is ideal for such products as gelatine and pudding desserts, dehydrated soups, dry cereals, pie crust mix, cake mixes and brown or confectionery sugar.

Pneumatic's Fin-Seal Package Maker machine handles all currently available heat seal coated lining materials. If desired, however, the unit may be furnished to run uncoated stocks. With this method a glue pattern is stenciled for side seam, top and bottom "fins" of the inner bag. Operations beyond this point are the same as when thermoplastic coated stock is used.

PNEUMATIC SCALE CORP., LTD., 82 Newport Ave., Quincy 71, Mass. *Also New York; Chicago; Dallas; Seattle; San Francisco; Los Angeles; Rockwell Pneumatic Scale Ltd., London N.W. 2, England. Subsidiaries: Delamere & Williams Co., Ltd., Toronto; Carbert Mfg. Co., Inc., Cambridge, Mass.*



THE NEW FIN-SEAL PACKAGE MAKER

Write for Bulletin No. 137 giving full details on the new Fin-Seal package.

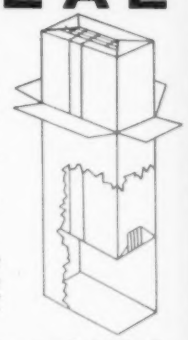
PNEUMATIC

Packaging and Bottling Equipment

Q: And what else do you associate with STAN-PAK?

Of course...

PNEUMATIC'S NEW FIN-SEAL PACKAGE



- Provides protection of heat-sealed envelope plus rigidity of carton.
- May be filled by weighing or volumetric methods — to any height up to 98% of capacity.
- Inner bag made with face-to-face fusing of currently used thermoplastic coated materials.
- Entire package produced on Pneumatic Double Package Maker combinations.

A container which has proved itself highly effective under most demanding conditions, the Fin-Seal package offers moisture protection within full tested range of lining materials.

The symmetrically made inner bag is formed with heat-sealed "fins", centrally located on one side, the bottom, and the top. Top and bottom fins are crimped under pressure with our unique plunger-action device for hermetically sealing folded side seam ends. Vertical or body seal on inner bag is in dead center to allow for mechanical spreading of lining top, during closure operations, without interfering with vertical seal.

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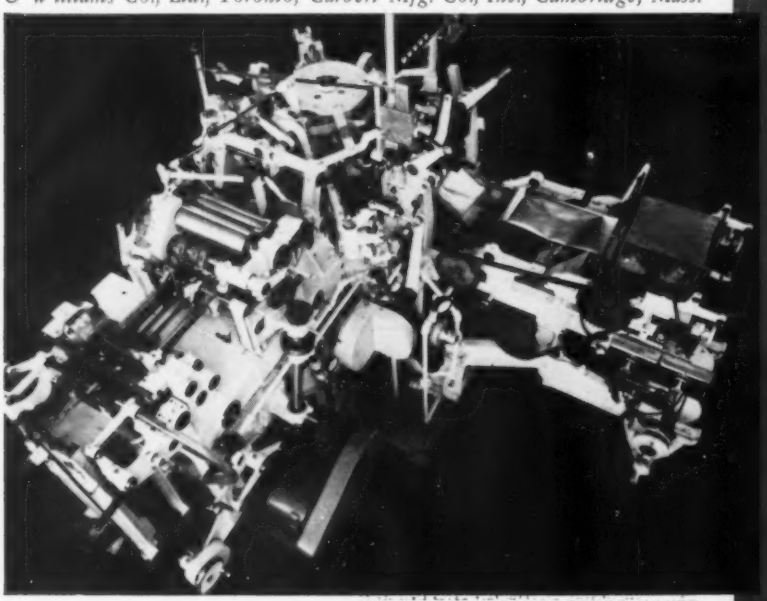

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PNEUMATIC

Packaging and Bottling Equipment

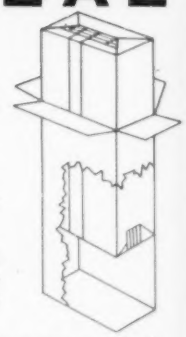
Q: And what else

Of course..

FLEX-VAC®
vacuum packaging

STAN-PAK™ offers you single-source convenience. Film, foil, paper and board. Laminations. Sheet and roll stock. Bags, pouches, boxes, sleeves. Labels. Lining materials. Inner and outer wraps. Vacuum and controlled atmosphere packaging. Special purpose containers. Nineteen mills and manufacturing plants. Sales offices throughout the United States.

PNEUMATIC'S NEW FIN-SEAL PACKAGE



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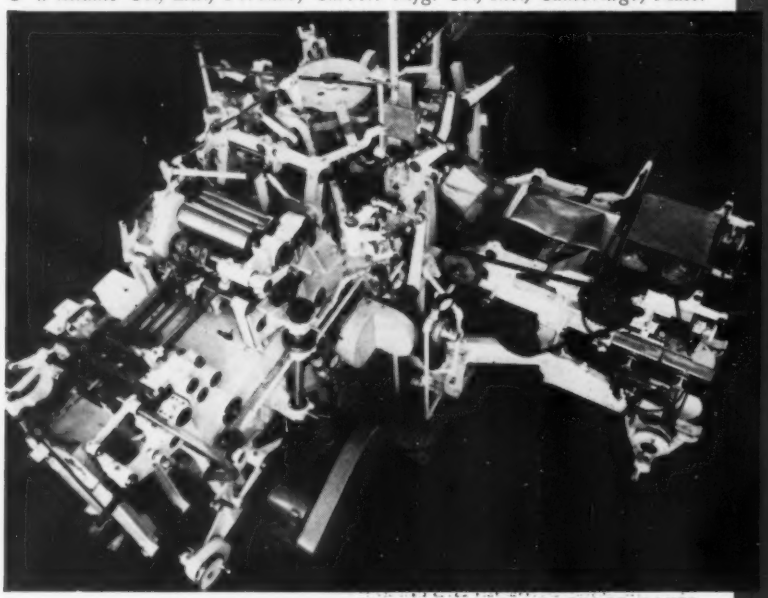

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PNEUMATIC

Packaging and Bottling Equipment

Q: And what else

Of course...

FLEX-VAC®
vacuum packaging

One of the many areas in which STAN-PAK can help you get packaging mileage. Now one of the country's largest integrated packaging manufacturers, Standard Packaging offers you a comprehensive service, national in scope. Capacity . . . both manufacturing and creative. Representatives who know their business . . . and regard it as a privilege to study yours. STAN-PAK: a good company to know, and depend upon.

STAN-PAK

STANDARD PACKAGING Corporation
America's fastest growing packaging source
Executive offices:
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Closure Division
Chicago, Ill.

Eastern Fine Paper and Pulp Division
Bangor, Me.

Flexible Packaging Division
Clifton, N. J.

Fuller Label & Box Division
Pittsburgh, Pa.

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Dayton, Ohio

General Felt Products Division
Brooklyn, N. Y.

Johnston Foil Division
St. Louis, Mo.

Missisquoi Division
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Modern Packages Division
Los Angeles, Calif.

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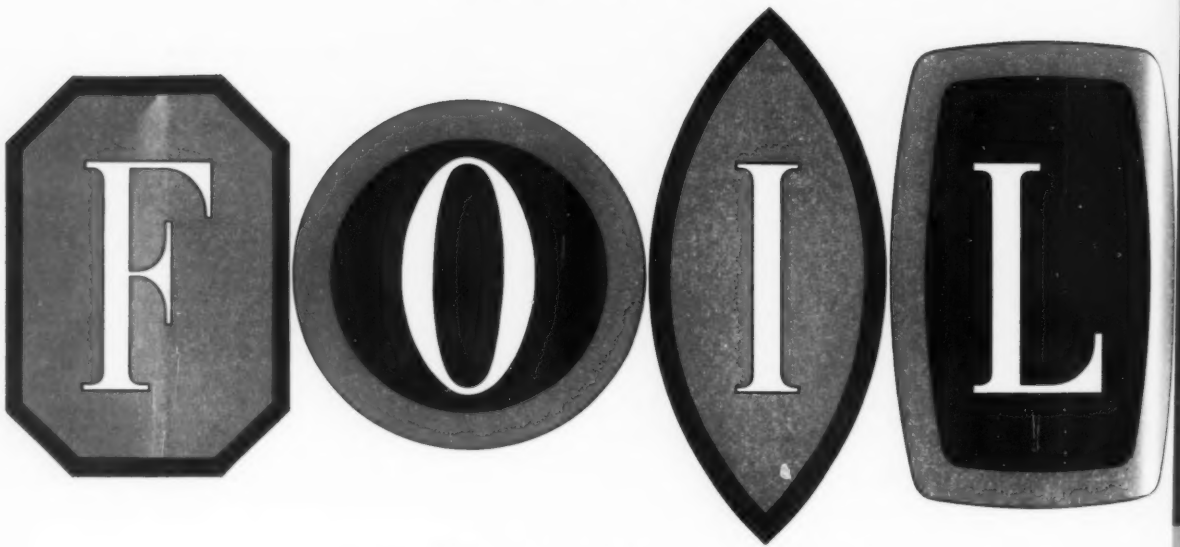
A
FAST,
FLEXIBLE
PRINTING SERVICE
WITH
ALUMINUM



Aluminum foil packaging is helping many of the nation's leading companies move their products faster . . . and Strawberry Hill Press is serving their foil printing needs.

A battery of five- and seven-color gravure presses enables us to do the finest quality work at high speeds . . . print, varnish or emboss in one operation.

The gravure process is ideal for foil printing because of instant drying of inks and the economies of high-speed production. *No minimum runs are required.*

Strawberry Hill also produces paper labels and wraps and fine color printing—either by gravure or letterpress.

Phone or write for a quotation.

Some Strawberry Hill Customers

Anheuser-Busch, Inc. • P. Ballantine & Sons • The Borden Co. Cities Service Co. • Colgate-Palmolive Co. • Hershey Chocolate Corp. • Lever Brothers Co. • P. Lorillard Co. • National Distillers & Chemical Corp. • Pepsi-Cola Co. • Philip Morris Inc. The Procter & Gamble Co.

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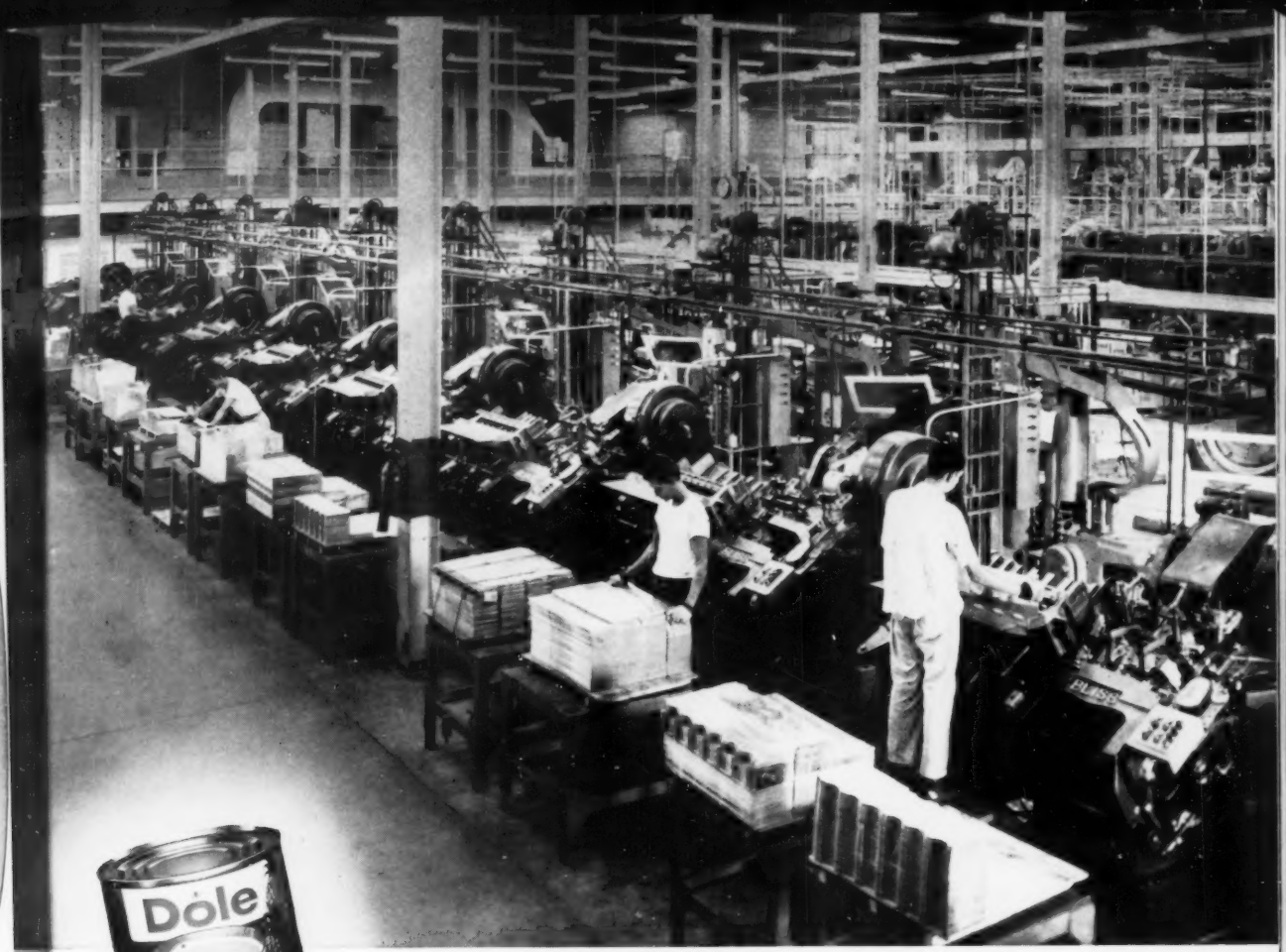
STRAWBERRY
HILL PRESS, INC.

23-02 49th Avenue, Long Island City 1, New York · *The leading source for gravure foil printing in New York C*



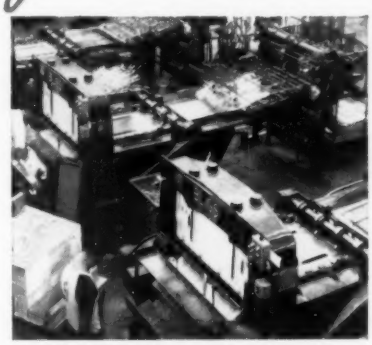
PINEAPPLE...

with a touch of BLISS

When Dole began to make its own cans, they made about 400,000,000 of them in eleven different sizes in their first year and effected some extremely impressive savings as a result.

One of the reasons is the fact that all of their end-making equipment is Bliss, including these high speed steady-performing strip feed presses.

How much would you save by making your own cans? One way to find out is to ask Bliss. Whether you need a single machine... a bank of related machines...or a complete "turn-key" plant... it'll make sense to check Bliss.



Scrolled Strips for Strip Feed Presses are produced on five Bliss Scroll Shears.

BLISS
SINCE 1857

E. W. BLISS COMPANY · Canton, Ohio

BLISS is more than a name—it's a guarantee

PRESSES • ROLLING MILLS • ROLLS • DIE SETS • CAN MACHINERY • CONTRACT MFG.

STAY-FRESH PACKAGING... with the basic

Cellophane gives tailored protection that keeps products fresh and flavor-full... and its crystal clarity enhances display appeal, triggers extra sales.

Today's shopper spends only a few seconds selecting an ite
in the retail store . . . yet she must pick from thousands
items. Surveys show that approximately 70% of supermark
purchases are "store decisions". . . and *sight* of the product
a powerful influence in these decisions. That's why cellophan
pure transparency is so important. It sells the shopper ligh
ning-fast . . . lets her see color, shape, texture . . . lets t
product itself do the selling.

What's more, Du Pont cellophane is versatile. It offe
virtually unlimited package constructions . . . efficien

high-speed ma
100 varieties,

Du Pont's
transparent p
greater brillia
experience to

See your Du
verter of Du P
(Inc.), Film D

basic sales power of pure transparency

high-speed machines . . . vivid color printing. There are over 100 varieties, each tailored to meet specific needs.

Du Pont's new "K" cellophanes—result of 35 years of transparent packaging experience at Du Pont—now offer you greater brilliance, protection and durability. Draw on this experience to help obtain a better, faster-selling package.

See your Du Pont Representative or your Authorized Converter of Du Pont cellophane. E. I. du Pont de Nemours & Co. (Inc.), Film Department, Wilmington 98, Delaware.

DU PONT
REG. U.S. PAT. OFF.

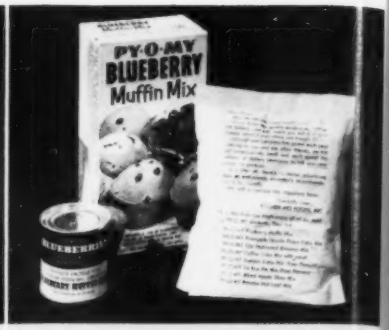
BETTER THINGS FOR BETTER LIVING . . . THROUGH CHEMISTRY

DU PONT cellophane

POUCH PAPERS

To give the housewife "instant" Mashed Potatoes with all the natural flavor goodness of "home" cooking, R. T. French pack their dehydrated product in "STAY-FRESH" pouches made from a Thilco grade that combines bleached white super-calendered Pouch paper with foil and Polyethylene.

To preserve the true richness and flavor of powdered chocolate and to prevent its "caking" over indefinite shelf-life periods, Servit Foods Co. package their product in heat sealable pouches made from a special Thilco Poly-coated, super- calendered grade. It is furnished flexo-printed in a two-color combination.



Favorite packaged food with housewives everywhere is Kitchen Arts' complete line of Py-O-My Pie, Cake and Muffin Mixes. Basic ingredients are pouch-packaged in papers by Thilco that combine the finest quality super-calendered, pouch grade with polyethylene. Sales message is furnished Print Decorated by Thilco.

Thilco's ingenious paper combinations for keeping foods "FACTORY FRESH" offer radically new marketing solutions

PACKAGE LINERS

Many of Kellogg's wonderfully crisp and flavorful breakfast cereals are preserved in Thilco's special waxed carton liner K-345. Extremely low in M.V.T. it seals excellently and is unusually high in burst and tear strength. This food preservation wrap insures Kellogg of product freshness wherever sold.

From dog chow to breakfast cereals, Purina products go to market safeguarded for factory freshness, flavor and crispness in Thilco's amber-waxed carton liner R-32 — one of the lowest M.V.T. waxed paper grades in the packaging field. It also features unusually high tear strength — excellent heat sealability.

The types of food packaging papers Thilco can furnish are unlimited, indeed! Our complete integrated mill facilities make it possible for us to supply protective grades in endless combinations of glassine, greaseproofs, waxed thermoplastics, foils, cellophane, polyethylene and others, as well as bulk packaging papers and heavy duty shipping wraps to fulfill your most exacting needs. Remember too, Thilco papers can be furnished PRINT-DECORATED for identification and advertising value.

Write for more information and Thilco's

Free Sample Kits

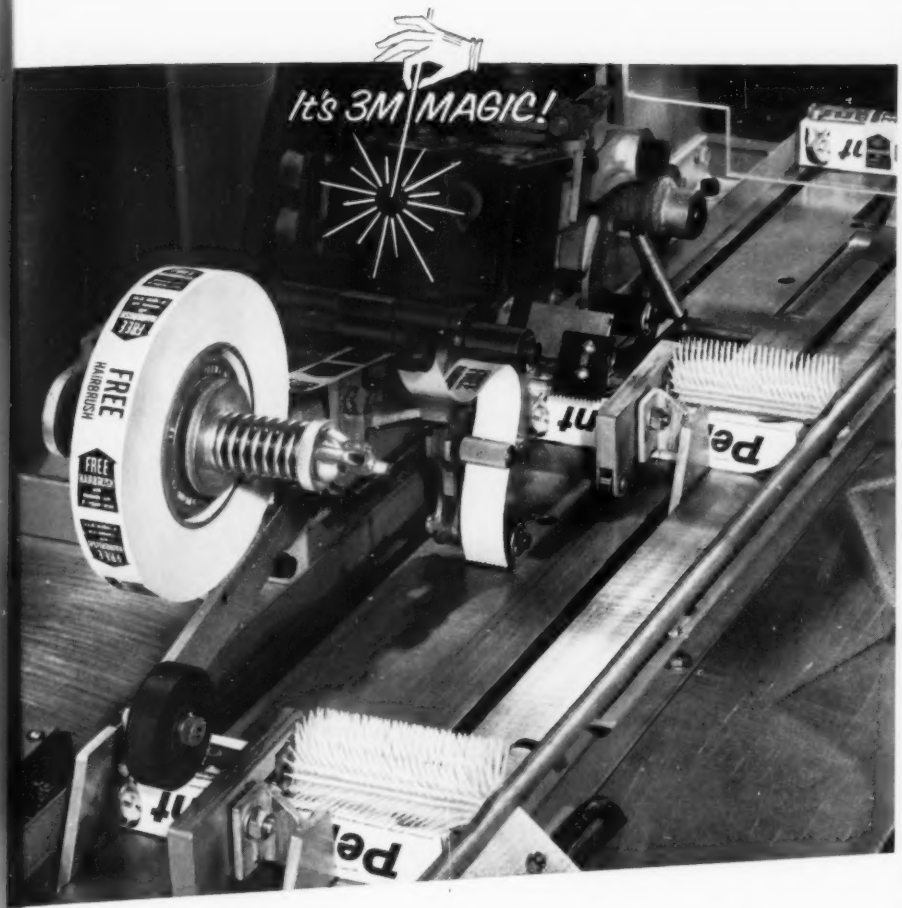
Tell us your packaging problem and the protective objective you wish to attain. Chances are we've a packaging grade to fill the bill — but if not, we'll make one to your specifications.

THILCO

Functional Papers

THILMANY PULP & PAPER COMPANY
KAUKAUNA • WISCONSIN

NEW YORK • CHICAGO • DETROIT • BOSTON
CLEVELAND • CINCINNATI • CHARLOTTE



NOW TAPEnology makes one out of two . . . 25 times a minute!

It takes less than 2½ seconds for this S-69 "SCOTCH" BRAND Combination Bundler to join this hairbrush premium to the product package *automatically*. What's more, the eye-catching yellow "SCOTCH" BRAND Acetate Fibre Tape holds the brush securely . . . is *printed* to carry the complete money-saving offer right onto retailer shelves . . . and all the way home with the purchaser!

This is just one example of the packaging possibilities offered by "3M-MATIC" Taping and Dispensing methods. In every case, tape is automatically started, applied, and cut off—with perfect register for printed tapes—at speeds up to 75 applications a minute.

What do you package? Chances are, "3M-MATIC" methods—the combination of the *right* tape with the *right* automatic or semi-automatic dispenser—can help you get neater results, faster speeds, lower costs. *Ask your nearest* "SCOTCH" BRAND *Tape Distributor for more information, or write: 3M Co., 900 Bush Ave., St. Paul 6, Minn., Dept. EA-69.*

When tape costs so little, why take less than "SCOTCH" Brand?

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SCOTCH® BRAND
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"SCOTCH" BRAND TAPES
TAPE-O-RAMA Contest
135 prizes . . . write for details
FEBRUARY 1—JUNE 30, 1959

"SCOTCH" is a registered trademark for the pressure-sensitive adhesive tapes of 3M Co., St. Paul 6, Minn. Export: 99 Park Ave., New York 16. Canada: London, Ontario.

MINNESOTA MINING AND MANUFACTURING COMPANY
. . . WHERE RESEARCH IS THE KEY TO TOMORROW

3M COMPANY

Equipment & Materials

A MODERN PACKAGING editorial feature

Low-density polyethylene foam

A flexible, low-density polyethylene foam is available in limited quantities from Dow Chemical. The density of the material is 2 lbs. per cu. ft.—some 30 times lighter than water. Because of its excellent shock-absorbing ability, the polyethylene foam is suggested for impact-packaging applications. The foam can be adhered to itself by the use of heat or adhered to other materials by commercially available adhesives, Dow says. Among the cited characteristics of the material are: low water absorption, low water-vapor-transmission rate, high solvent and chemical resistance at room temperature, light weight, good insulation value and odorlessness. It is available in 9-ft. lengths in two sizes each of round stock, flattened ovals and untrimmed planks. *The Dow Chemical Co., Midland, Mich.*

New line of automatic web splicers

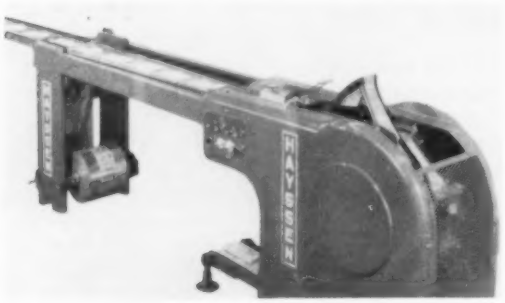
Automatic splicing in registration, without stopping the wrapping machine for roll change, is one of the advantages cited by Butler Automatic Machine for its new "Twenty-five" series of web splicers. The units are mounted on the frame of the web-consuming equipment, to conserve floor space. According to the company, the machinery is simple to use, requires minimum maintenance and contributes to production-line economy because it eliminates paper waste and also eliminates the need for an operator to stand by waiting for the depleting roll to run out. The splicing action is triggered automatically by the trailing edge of the depleting roll. The new web splicers are available with different specifications to accommodate the needs of various styles of wrapping equipment. *Butler Automatic Machine, Inc., Cambridge 39, Mass.*

Lustrous, protective packaging material

Metallic Polycel is the name given by H. P. Smith Paper to its newly introduced flexible-packaging material that is a lamination (from the outside in) of cellophane, polyethylene, aluminum foil and polyethylene. The protective packaging material is available in bag, pouch or roll form. The cellophane outer face can be reverse printed to create more lustrous, eye-appealing effects, the supplier says. *H. P. Smith Paper Co., 5000 W. 66 St., Chicago 38.*

Automatic packaging of non-uniform items

Hayssen reports that its new Model RT horizontal packaging machine provides automatic film packaging of irregularly shaped products that normally require hand or



machine wrapping with support. According to the supplier, a method of forming the package independently of the item being wrapped permits the use of the machine for products of various sizes. Any heat-sealable packaging material can be used. As the packaging film is pulled toward the back heat sealer, it is folded naturally over the product, then passes under a back sealing iron. Height of package is adjusted with a finger wheel that raises or lowers the back sealing bars. After the back-sealing operation, the partially wrapped package moves on to the end-sealing bars, which are positioned on a constantly rotating drum. Here, the bottom of one package and the top of the next are sealed simultaneously and severed from each other. The completed packages are released onto a discharge conveyor at the completion of the sealing cycle, ready to be packed for shipment. *Hayssen Mfg. Co., Sheyboygan, Wis.*

Designed for high-speed automation

Genevamatic Engineering Corp. reports that its standard Geneva drives, designed to meet the demands of high-speed automation in packaging-line and other applications, now are available with three to 24 indexing stations for shaft-center distances ranging from 3 to 6 in. in ¼-in. increments. A wide variety of hub and bore diameters is offered and steel wheels are furnished with Mechanite driving wheels. According to the supplier, its new drives insure accurate indexing, positive locking as well as smooth and trouble-free operation of packaging machines. *Engineering Corp., Tampa, Fla.*

Polyethylene resin for thin coatings

Alathon 15 is a new Du Pont polyethylene resin that reportedly can be drawn down to extremely thin coatings at high speeds, for protection against the transmission of water vapor. Its anticipated volume applications are in the coating of aluminum foil or polymer-coated cellophane used to make pouches for powdered soups, soluble coffee, pipe tobacco and other humidity-sensitive products. The resin is said to offer improved neck-down characteristics without loss of adhesion to the material being coated, thereby permitting the extrusion of extremely wide webs. Another cited property of the material is that it allows lower heat-sealing temperatures, to eliminate the possibility (when used as an overlayer on polymer-coated cellophane) of softening, bubbling or delamination of the heat-sensitive polymer in the base coat. *E. I. du Pont de Nemours & Co., Inc., Wilmington 98, Del.*

Stretchable burlap tubing

A stretchable burlap tubing designed for the protection in shipping of rolls of soft goods or other bailed items is claimed to reduce labor costs through increased packaging production. The tubing is hung down from the ceiling and pulled around the products to be wrapped, after which it is closed top and bottom with a wire tie. It is available in various sizes, from 13½ to 80 in. wide. *Gittlin Bag Co., 850 Frelinghuysen Ave., Newark 12.*

Low-cost thermoforming unit

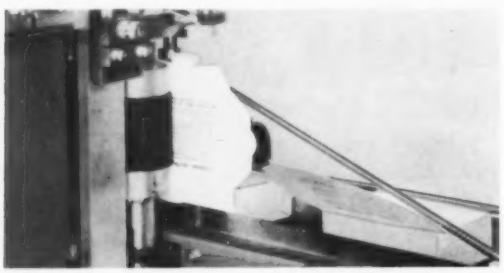
Designed primarily for packagers engaged in specialized production runs requiring frequent change-overs is Auto-Vac's low-cost sheet-plastic thermoforming machine. Called Pro-Vac, the semi-automatic unit is suggested for use in vacuum and drape forming, roll-fed blister and skin packaging, or plug forming. It has a maximum forming area of 24 by 30 in., with automatic drape mechanisms adjustable

Coat by FREDRICA
Magicote® Brand
NEW COATED
BLEACHED SULPHATE BOARD
with superlative printing surface
for luxurious packaging.
May we send you samples for test runs?
Gilman Paper Company
3 Generations of Paper Making
New York: 630 Fifth Avenue • Chicago: Daily News Bldg.

to 10 in. Heating, forming, cooling and ejection cycles are controlled by automatic timers which are adjustable in half-second increments. An oversize heater with temperature range up to 1,200 deg. F. prevents cool edges and provides fast, uniform heating, according to the supplier. *The Auto-Vac Co., Bridgeport 5, Conn.*

Printing on frozen-food cartons

Direct printing on frozen-food cartons in the carton-forming operation is possible with Western-Waxide's new Crown Regal printing machine. Cited advantages of the unit to packagers are that it eliminates the need for a printed-



carton inventory and that printing can be done without loss in production time. Direct printing on the carton also means that cooking instructions, recipes and serving data won't be lost or destroyed when the housewife removes the carton overwrap, the supplier points out. The new printing unit uses easy-to-change rubber printing plates. *Western-Waxide Div., Crown Zellerbach Corp., San Leandro, Calif.*

Forming slide tracks in blister packages

New from Tronomatic is a machine that forms slide tracks on pre-formed thermoplastic blister packages. Fed by hand, the unit automatically folds over the flanges of a blister package so that it can accept a slide-out paperboard cover. The unit will make slide tracks in blisters of varying size at a reported rate of 150 to 500 in. per minute. A micrometer stop maintains uniform slide dimensions once they have been pre-set to the required fold. *Tronomatic Machine Mfg. Corp., 1881 Park Ave., New York 35.*

Economy and speed in candy wrapping

Hansella's new Type 30 Zip-Wrap is a high-speed automatic machine for packaging individual pieces of hard candy in easy-to-open film pouches. The unit operates at a reported speed of more than 500 pieces per minute. The heat-sealed film pouches which are formed and filled on the new machine require up to two-thirds less packaging material than is required in conventional candy-wrapping operations, the supplier claims. A tear tape is applied to one vertical edge of each pouch in the forming operation. *Hansella Machinery Corp., Palisades Park, N.J.*

New, high-gloss, low-cost cartonboard

Diamond Gardner has introduced Diamond-Glo cartons, which the company describes as a combination of new, high-gloss paperboard and superior printing for prestige packaging effects at low cost. According to the supplier, the smooth paperboard used is exceptionally receptive to printing inks, thereby permitting depth of illustration, brilliance of colors and faithful reproduction. The board is reportedly adaptable to letterpress, lithography and gravure. *Diamond Gardner Corp., 122 E. 42 St., New York 17.*

600-gauge polymer-coated cellophane

Designed for durability in packaging applications is Du Pont's new 600-gauge polymer-coated cellophane. The sparkling-clear film, designated 600-K, is suggested for use in the packaging of such products as candy, cookies, potato chips and noodles, where film breakage is a critical problem. The company reports that in a test conducted at 0 deg. F. and 20% relative humidity, its new film scored 93% on durability against 38% for double-wall 300 MSD films. The test packages were 2-lb. bags of popping corn. The stiff, transparent film also is reported to provide adequate moisture protection for most products. *E. I. du Pont de Nemours & Co., Inc., Wilmington 98, Del.*

New stock-design screw caps

A new stock design called "Swirl" has been added to Armstrong Cork's Artmold line of urea and phenolic screw caps. According to the supplier, cap design lends itself to high-speed operation with automatic capping equipment because of the even strength of the closure's skirt, dome and thread. *Armstrong Cork Co., Lancaster, Pa.*

Identification coding for unit packages

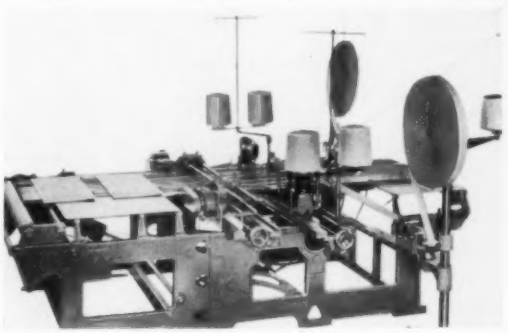
A new coding system for marking unit packages during production has been developed by Ivers-Lee. The supplier says that the system provides packagers with a foolproof method of identifying or isolating any portion of a production run that may be subject to recall for any reason. Further details are available on request to the company. *Ivers-Lee Co., 215 Central Ave., Newark 4.*

Decorative spray on glass containers

Owens-Illinois reports the development of a new process for spraying the entire surface of a glass container with ceramic or organic materials. The process makes possible unusual decorative color combinations which are particularly adaptable to packaging in the cosmetic industry, says the supplier. Special machinery for the color-spraying process has been installed at the company's Clarion, Pa., plant. *Owens-Illinois Glass Co., Toledo 1.*

Tape-over sewing of mutiwall bags

Potdevin's newest sewing machine for multiwall bags, the Model S3, is equipped to do tape-over sewing (in which the selvage is pasted over the stitches rather than having the stitches go through the selvage). It also provides all the techniques for sewn open mouth, sewn valve and regular



sewing through selvage, the supplier says. Tube sizes that can be accommodated range from 20- to 54-in. tube lengths to 10- to 26-in. face widths. The manufacturer points out that the unit operates with right- and left-hand sewing heads, so that both ends of double-end sewn bags can be sewn simultaneously. *Potdevin Machine Co., Teterboro, N.J.*

New machines for paper processing

Two new machines from Black-Clawson are a blade-type paper coater and a heavy-duty press section for use in paper-saturating and impregnating machine lines. The new Flexiblade coater features adjustments that permit variation and control of coating weight while the machine is running. Its cited advantages include an enclosed fountain

[*Continued on page 158*]

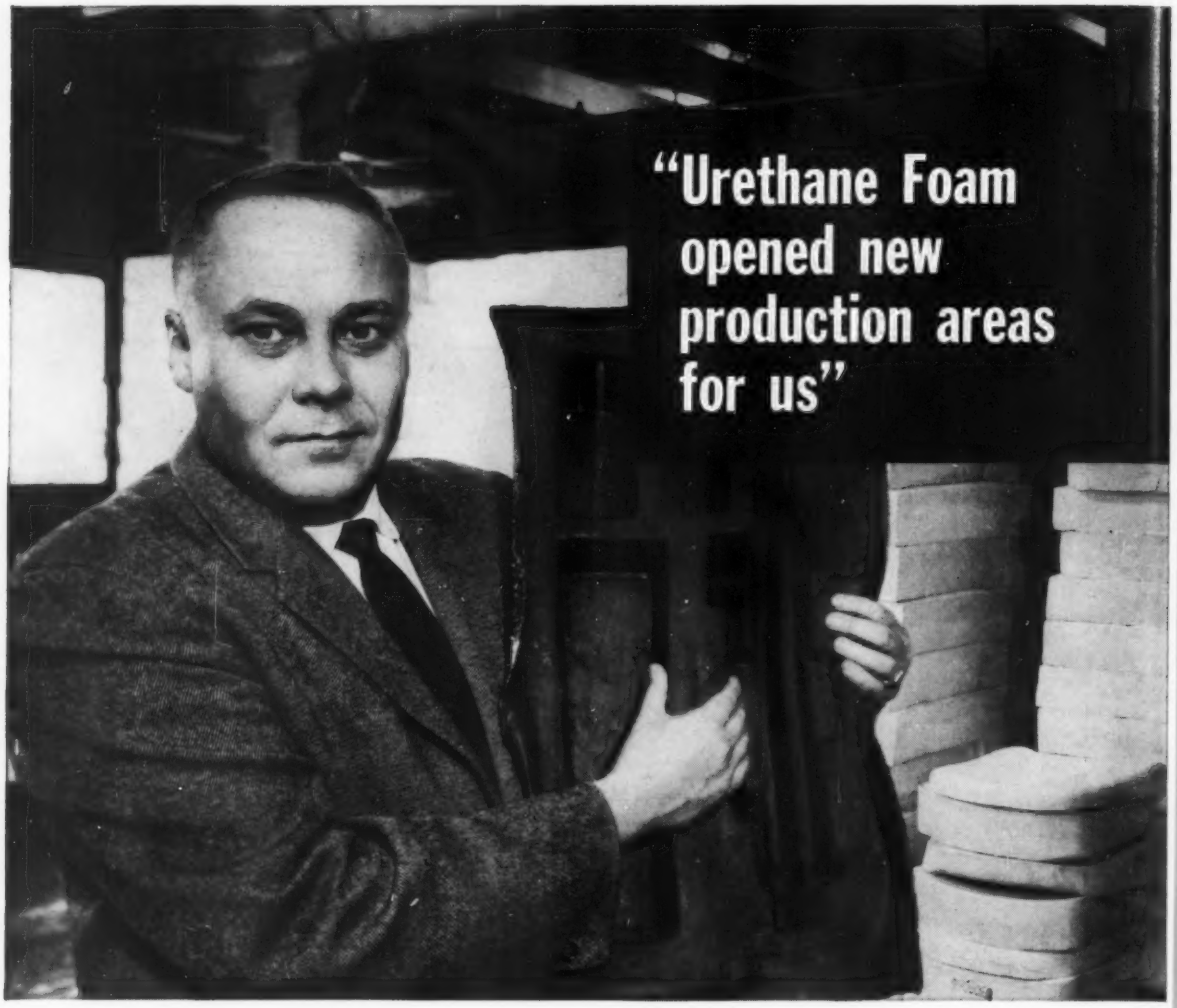
metromatic...
when you need it!

When your aching head is a result of product packaging, Metro will diagnose accurately and prescribe satisfactorily. Whether your product be aspirin or rubbing alcohol, shampoo or cream, Metro will come up with glass containers that fill your needs down to the most exacting specifications. Experience, research, vast production facilities, and the absence of red tape tell the Metro story. When the personal touch plus trigger-timing make the difference, count on ***metromatic,*** the first class service for first class products!

MANUFACTURERS OF QUALITY GLASS CONTAINERS

METRO GLASS

Metro Glass Company, Incorporated,
General offices: Jersey City, N. J.



says James J. Gibbons, Director of Sales and Advertising, Bostrom Corporation, Milwaukee, Wisconsin

"When we were asked to develop a permanent shipping container to withstand extraordinarily rough treatment, our search for a suitable material really began. The case is used for protecting oil field detection instruments subjected to great vibration and, frequently, acid leakage and fumes found in this working environment.

"We had used urethane foam as seat cushions for earth-moving equipment and farm machinery and had observed that it was impervious to oil and grease, household cleaning fluids and chemicals. It was a natural step to develop urethane foam as the liner which can be molded with relative simplicity, wears well and withstands chemical and shock impact in service. Based on our company's experience in molding urethane foam, we anticipate its rapid growth into many new products for industry."

Molded urethane protective cushioning element is seen at left. Final case assembly weighs only 15 pounds and costs much less than comparable metal lined case formerly required.

MOBAY
CHEMICAL COMPANY
Dept. K-3 • Pittsburgh 34, Pa.

Mobay is the leading supplier of quality chemicals used in the manufacture of both polyether and polyester urethane foams.

MOBAY
First in Urethane Chemistry

The Man With The Lily Plan ADDS EYE-CATCHING APPEAL TO NESTRITE* TUBS FOR NEW PROFIT PLUS

Peggy Kellogg
BUTTER PEANUT BRITTLE
ingredients: peanuts, sugar, corn syrup, creamery butter, salt, soda, and NDGA (a preservative).
SOLD ONLY BY SEARS, ROEBUCK AND CO.
CHICAGO, ILL.
AND OTHER LEADING CITIES
NET WEIGHT
rich buttery brittle
crisp and crunchy
Peggy Kellogg
BUTTER PEANUT BRITTLE

You *need* an adding machine to total up all the hard-selling extras *this* tub gives you. Unique shape, eye-catching printing and colors, and most important, a quality image —a premium look that can command premium prices!

Sears Roebuck and Company switched to the #3 Lily* tub for their Peggy Kellogg peanut brittle. Result? A stand-out package that reflects the high quality of the product inside. Best of all, sales zoomed.

More facts on Lily tubs: they're sturdy — product protection is assured; tapered shapes let you nest one in the other... save space; wide mouths speed filling without mess or waste; can be specially imprinted with your brand name and product identification.

The Man With The Lily Plan can adapt his packaging know-how to most any product. Ask him to sit with *you* on *your* problem. Call, or send the attached coupon. *T. M. Reg. U.S. Pat. Off.

LILY-TULIP

Lily-Tulip Cup Corporation
Dept. MP-6, 122 East 42nd Street
New York 17, New York

I would like to hear more about LILY containers for packaging, and what they can do for_____ (product)

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Company_____

Street_____

City_____ Zone____ State_____

What you should know about

Is your box a delivery boy

There's a whale of a difference. It usually shows up on the sales charts.

Did you know, for example, that some products' sales have increased substantially *after* their containers were redesigned *visually?* And consider this: A single corrugated box, in an average service lifetime, can meet and influence hundreds of people. Since you've paid for this valuable display space, why not make the most of it?

Plant . . . to point-of-purchase

Colorfully printed corrugated boxes work hard for you in dozens of ways. You can use them to promote your brand name—create a "personality" for your product—add point-of-sale impact. Your designs can tie in with special and seasonal promotions and events —or your advertising. They can help develop dealer preference by speeding identification, simplifying inventory control. Even on factory warehouse shelves good-looking boxes do an important in-plant merchandising job.

Choosing the design

The type of design and color to use will be governed by the specific marketing needs and the product itself. Is it an industrial . . . a staple . . . a luxury? Should the mood be

design and printing of Union boxes

...or a traveling salesman?

gay . . . warm . . . dignified? Is it desirable that the design be adaptable to family packaging?

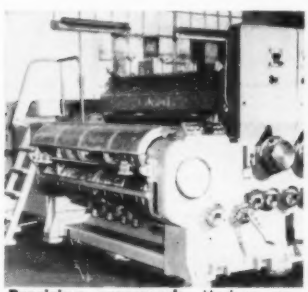
Union's Package Design Department will be glad to analyze each of these factors for you, help you take maximum advantage of the many merchandising opportunities your container offers.

Making the right impression

How well your box design succeeds as a salesman depends largely on how it is reproduced. And printing on corrugated is an exacting science. Roll pressures, for example, must be light enough not to damage or weaken corrugations...yet heavy enough to insure clear, crisp impressions that will stand up (and stand out) even under the severest handling and shipping hazards.

The tools for the job are critical too. Today, flexible printing plates have been perfected so that they can be tailored to the specific job to be done. There are new moisture-set and oil-base inks to choose from as well as new precision machines for the actual printing. When these developments are teamed with the bright, smooth surface of Union containerboard the result is a corrugated box that gives you the best in protection for your products and merchandising for your brand.

Ask to see samples of what has and what can be done. Union's artists and pressmen have produced outstanding designs for some of the country's largest and most discriminating box users. Their services and talents are at your disposal.



Precision presswork. Modern machines automatically print, score, slot and stack box blanks — in one fast operation.

Hardworking designs quickly identify contents including brand, size, count, code number.

An experienced art staff is at your service. Specially trained to get the most out of corrugated printing, they can help you achieve maximum merchandising impact with your box.

Write for new informative booklet, "Printing of Corrugated Boxes."

union camp

UNION BOXES

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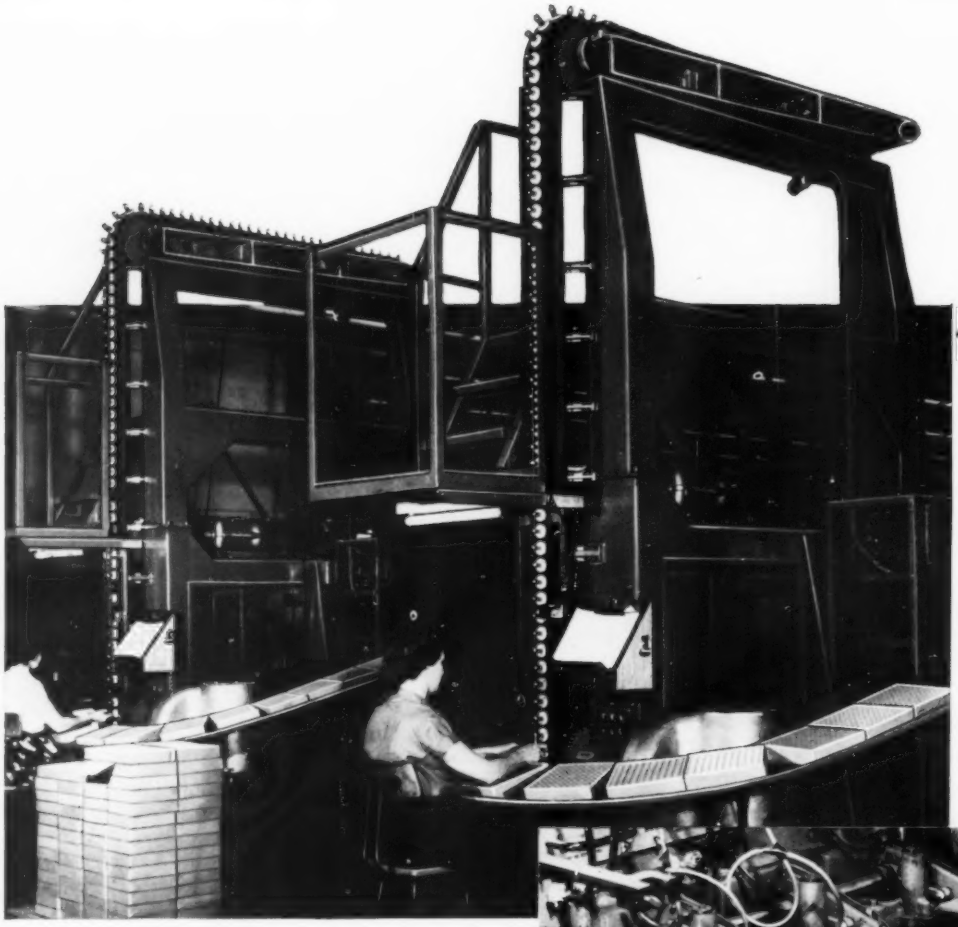
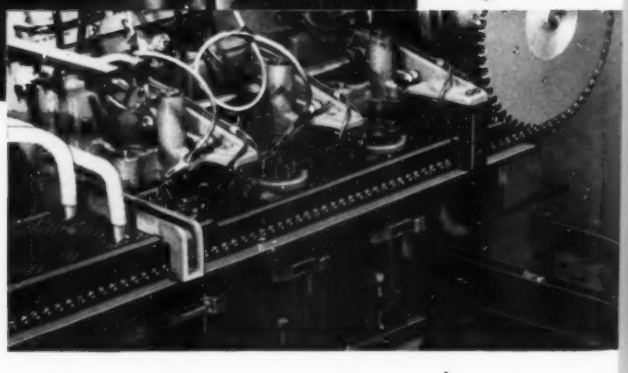
Factories: *Savannah, Ga.; Trenton, N.J.; Chicago, Ill.; Lakeland, Fla.*

Sales Offices: *Eastern Division — 1400 E. State Street, Trenton, N.J.*
Southern Division — P.O. Box 570, Savannah, Ga.; P.O. Box 454, Lakeland, Fla.
Western Division — 4545 W. Palmer, Chicago, Ill.



Diamond Roller Chains carry test sockets, with tubes inserted, over top of machine for preheating. Tubes continue to positions along bottom for individual testing, tapping for "opens" and "shorts," and packaging.

DIAMOND Roller Chain carries tubes to final testing position, from which they are automatically pushed from sockets for packaging or rejection.



SYLVANIA
selects
DIAMOND
for new high-production testing equipment

When Sylvania Electric Products, Inc. automated tube testing procedures at the Williamsport, Penna. plant, DIAMOND Roller Chain was selected by Sylvania engineers for specially designed tube-testing conveyors.

DIAMOND Roller Chains maintain accuracy and uniform pitch throughout a long, trouble-free service life . . . essential qualities in maintaining Sylvania's standards of precision testing on a production basis.

Whether your conveying application is special, unusual, or "standard," you can depend on maximum performance at lowest operating cost with DIAMOND Roller and Conveyor Chains. A complete range of types and sizes is available from stock. Call your DIAMOND distributor today! Engineering service available.

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Double-duty BBD Flexographic/Gravure Inks cut costs, save space

One of these BBD Double-Duty Flexographic/Gravure Inks will meet your requirements

—for printing on paper, board, film and foil

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Why stock two inks—one for flexographic printing, another for gravure—when just one BBD double-duty ink will do the job better, easier, more economically? Depending on your needs, any one of five superior BBD double-duty inks will give you sharp, snappy prints by both flexography and gravure, on individual or combination presses. BBD double-duty inks eliminate the problems involved in using two different inks, reduce confusion and chances for costly errors, assure better color control and uniformity. BBD double-duty inks cut heavy space-eating inventories, too. You operate more efficiently, print more profitably, do a better job for your customers.

For more information on Bensing Bros. and Deeney double-duty inks for flexography and gravure, write *General Printing Ink Company, 750 Third Avenue, New York 17, N.Y.*

Branches in all principal cities

Bensing Bros. and Deeney Flexographic Inks

Product of

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Sun Chemical Corporation

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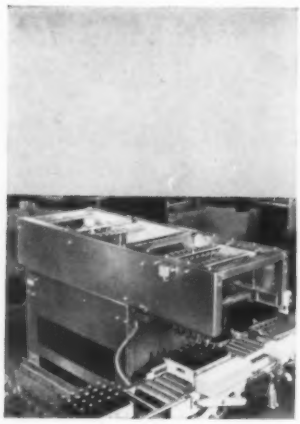
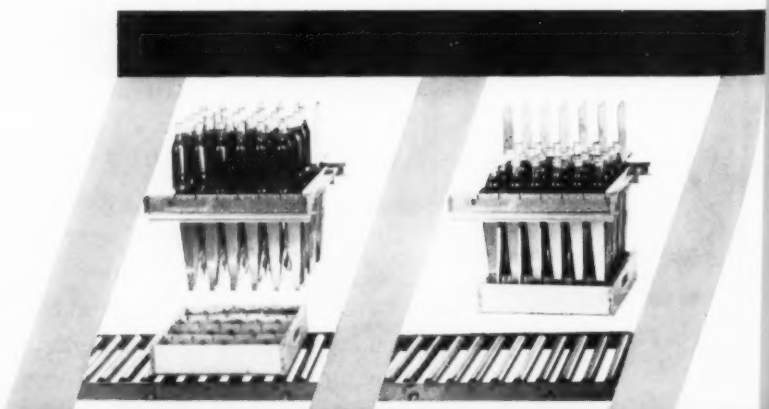


S-K 860

There's more to the modernity of this new Standard-Knapp Bottle Packer than meets the most critical eye. Here's speed — perhaps more than you need — capable of cycling up to 30 cases a minute. Here is the most positive case feed available, joined to the most dependable case loading technique known. All this in less floor space, with greater adjustability to container sizes and fewer moving parts than ever before. Maintenance is both reduced and simplified by such features as self-aligning bearings, air-operated pusher plates, easily removed grid and self-contained drive . . . THAT'S THE STANDARD-KNAPP 860 BOTTLE PACKER



Emhart Manufacturing Company
Portland, Connecticut
Standard-Knapp Packaging Equipment

EMHART

the NEW 32 oz. Plastic Jar

Here's the latest star performer in our line-up of plastic jars and vials—the big, beautiful 32 oz. jar. Available for immediate shipment in two materials: linear polyethylene with overflow capacity of 32.3 fluid ounces—weight 211 pounds per thousand; or polystyrene (clear) with overflow capacity of 33.8 fluid ounces—weight 212 pounds per thousand. Either jar takes a standard 120 mm closure.

An equivalent capacity glass jar weighs 4½ times greater. That adds up to tremendous savings in freight and materials handling. And loss from breakage is held to an absolute minimum. Take advantage of our trial offer and see for yourself. Ask for our free brochure that describes in detail the widest variety of stock plastic jars and vials available anywhere.

REMEMBER . . . *at Celluplastic Your Packaging Problem is Our Business.*

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Newark 5, New Jersey

ENTER A TRIAL ORDER!

Sirs:
Please enter my trial order for:
☐ 100 linear polyethylene 32 ounce jars at $42.00
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☐ Also ship 100 black metal closures with pulp and vinyl liners at $5.80 per hundred.

Name _____

Address _____

☐ My check is enclosed ☐ Invoice our company

NOW! AEROSOLS SPRAY PAIN AWAY

Pharmaceutical aerosols may see next big market break-through!

Right now, pharmaceuticals are the fastest growing of all aerosol product groups. Pressure-packed drugs showed a sales increase of 155% in 1957 over 1956—compared to a 22% increase for all aerosols. A major market break-through seems imminent—for products such as spray-on burn remedies which are now being marketed, and for a host of other pharmaceutical products which have yet to be put up in aerosol form.

Right now's the time to plan on capturing *your* share of this market. And while you're considering aerosol packaging for your medicinal product—*or any other product* that can be sprayed, poured, brushed, dusted or daubed—General Chemical can be of real help to you in many different ways.

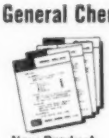
Help in making and marketing

As a leading producer of aerosol propellants, General Chemical offers many helpful services to present and prospective aerosol marketers.

Advanced research in our aerosol laboratories has led to the development of typical formulations for a number of new aerosol product ideas. For example, *Product Information Bulletins* are available now on such new aerosol pharmaceuticals as Athlete's Foot Medication, Burn Remedy, External Analgesic, Nasal Relief Spray, Neomycin Spray and Foam, Poison Ivy, Oak and Sumac Remedy, and Medicated Hand Lotion. Write for free copies of any or all, and ask to be put on our mailing list for new *Bulletins* as they are developed.

We will also be glad to put you in touch with highly capable contract fillers, who can put up small runs for you or handle full-scale commercial production. They will work with you from planning and testing through to volume filling. You don't have to invest a cent in equipment or production personnel when you work with these contract fillers!

General Chemical services include:


New Product Ideas

Technical Literature and Market Data

Technical Assistance with Product Development and Formulation

For further information—or if you would like to arrange for a special presentation—write today to "Genetron" Dept. General Chemical Division, Allied Chemical Corporation

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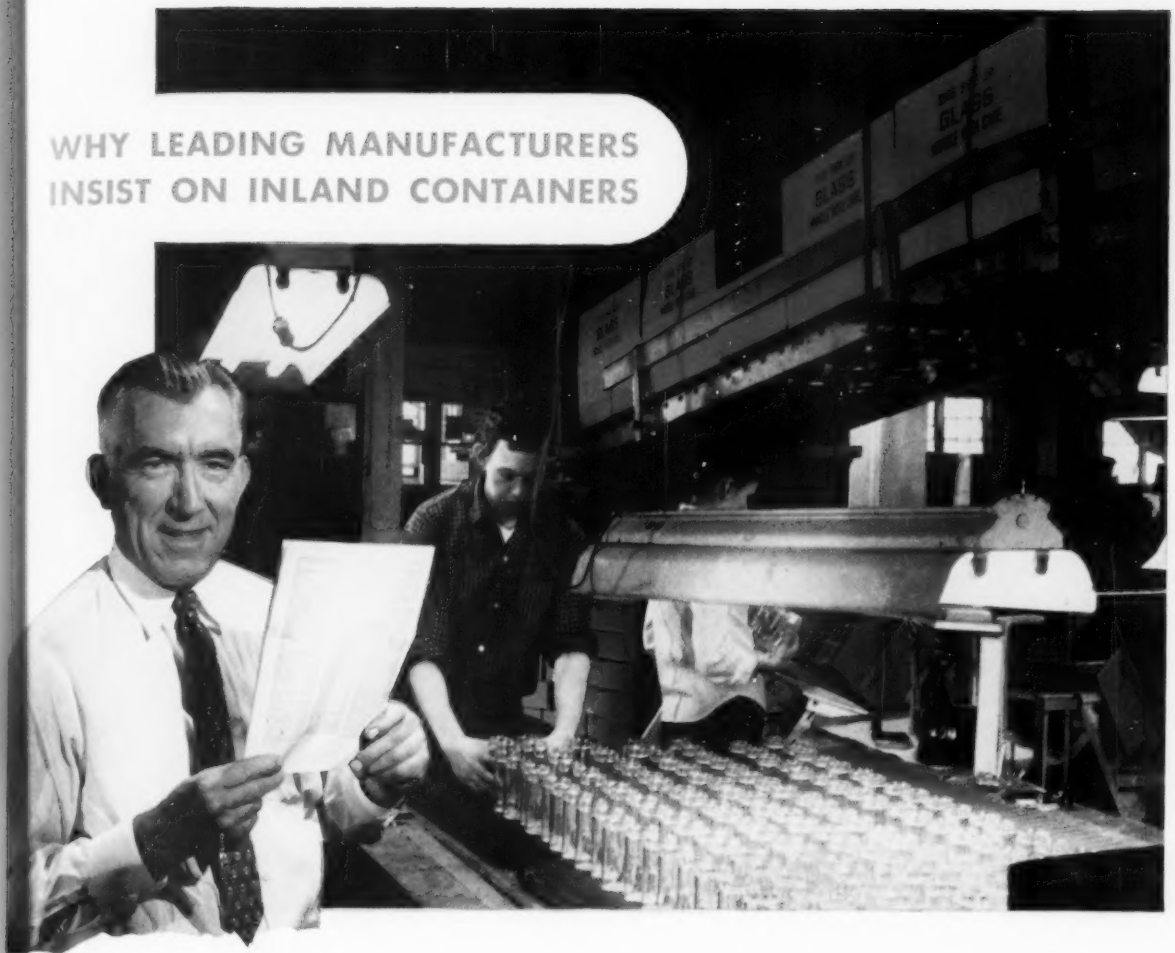
Allied Chemical

GENERAL CHEMICAL DIVISION
40 Rector Street, New York 6, N. Y.

WHY LEADING MANUFACTURERS INSIST ON INLAND CONTAINERS



"We've found the best shipping containers cost the least in the long run."

All too often "bargain" shipping containers boomerang. That's when they increase cost by poor performance on the packing line, in the warehouse and in transit instead of producing the savings they seem to promise.

For this reason manufacturers of every conceivable kind of product insist on Inland quality containers. Inland containers are custom-designed and precision-manufactured to keep packaging labor costs down, provide maximum warehousing efficiency, minimize shipping weight and safeguard that priceless asset—customer good will—by assuring factory-perfect condition when delivered.

You can always depend on Inland to furnish the *right* container for your product. Your nearby Inland Package Engineer is a corrugated shipping container specialist . . . call him for every requirement.

CALL YOUR INLAND PACKAGE ENGINEER

INLAND BOXES

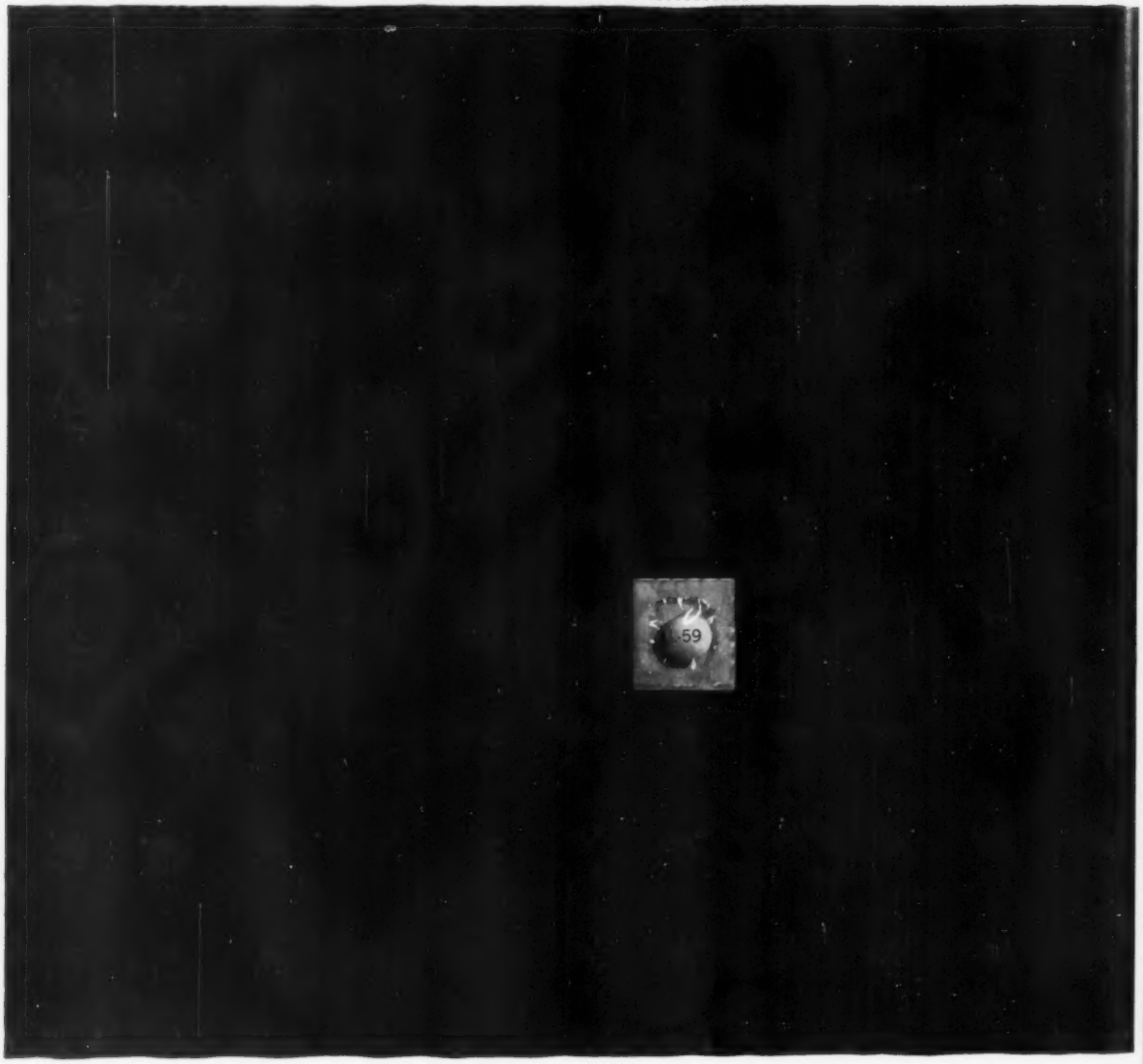
INLAND CONTAINER CORPORATION

Corrugated Fiber Boxes

Mills: Macon, Georgia; Rome, Georgia. **PLANTS AND SALES OFFICES:** Indianapolis, Indiana; Middletown, Ohio; Milwaukee, Wisconsin; Evansville, Indiana; Detroit, Michigan; Macon, Georgia; Erie, Pennsylvania; Ashtabula, Ohio; Orlando, Florida; Rome, Georgia; Biglerville, Pennsylvania; Dallas, Texas; Chicago, Illinois; Louisville, Kentucky.

Other Sales Offices in Principal Cities · Consult Your Telephone Directory

Ivers-Lee . . . a company of people, plants and ideas . . .



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Coding is available in all colors, and Ivers-Lee's unique "IL INSTA-PRINT" process insures exact, permanent, scuff-proof identification.

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Artcote gold polylin papers are available in metallic coated gold, silver, and bronze finishes, ungummed or ungummed, embossed or plated. Paper stock available in 60 lb. weight ... cover stock available in 65 lb. or 80 lb. weight. All Artcote papers and cover stock accept halftones, four-color process, silk screen, offset, offset lithography, letterpress and flexographic printing. Write today for sample book.

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ANACO

JUNE 1959

Another FOIL packaging success with ANACONDA ALUMINUM...

Four heads got together to produce a prestige package for...

Not long ago, four companies—**General Mills Refrigerated Foods Division, Lustour Corporation, Sefton Fibre Can Company and Anaconda Aluminum**—revitalized the Betty Crocker Bisquick Biscuit package. Foil's many benefits were utilized in this new can, which is now building prestige, *and sales,* for Betty Crocker Refrigerated Biscuits.

Inside... a foil-kraft paper inner-liner laminate keeps natural moisture and oils where they belong—in the dough.

Outside... a foil label that, with a gleam and a glitter aimed right at the housewife, protects the can walls from outside moisture penetration.

All Around... Anaconda Aluminum foil is busy protecting and selling the product.

To put this happy ending on your packaging story, contact Anaconda Aluminum. Write: Dept. ML-6, 1430 South 13th Street, Louisville 10, Kentucky.

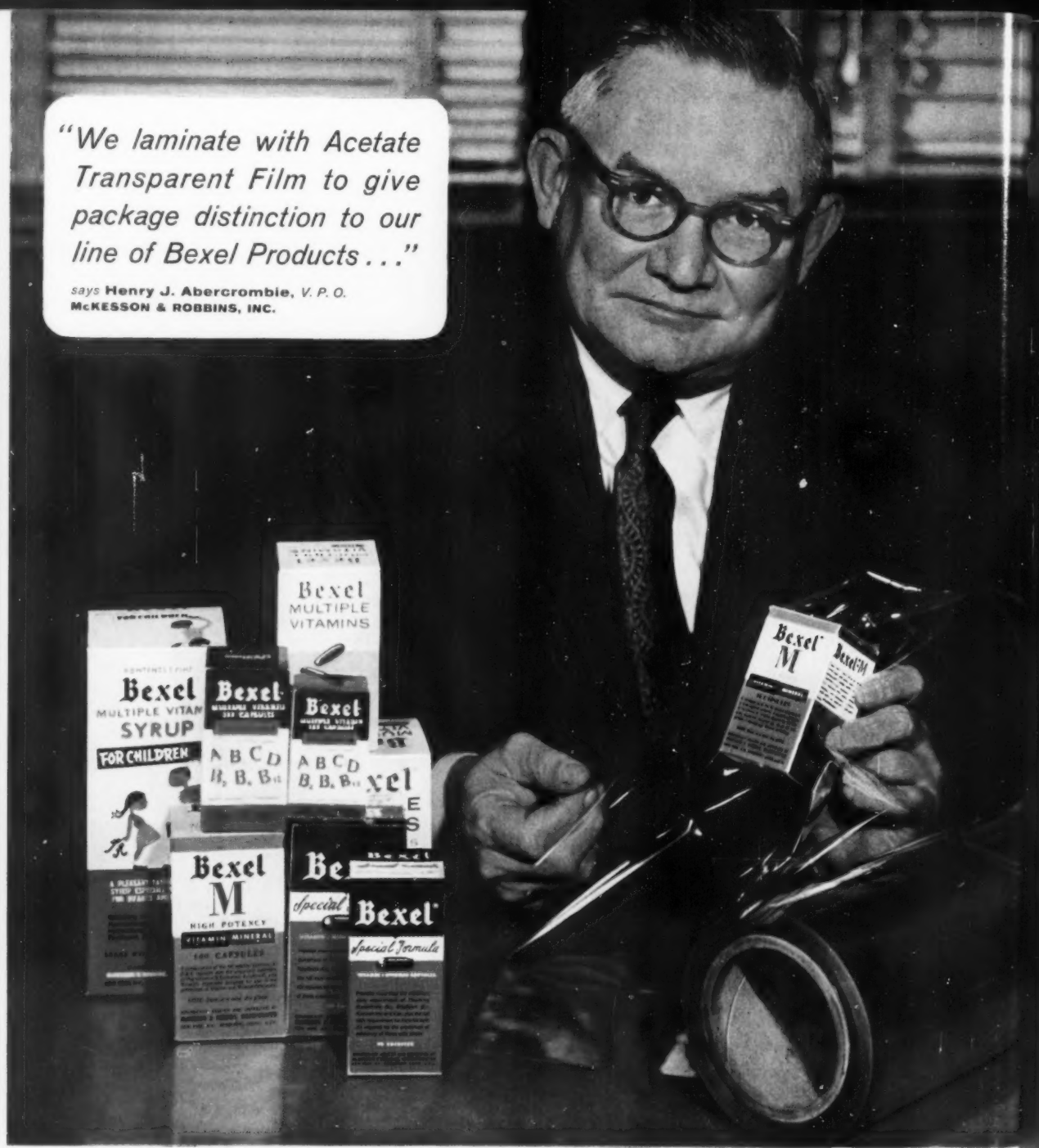
Easy to open—user lifts tab, pulls to bottom of package.

Package twists open easily after gentle tap.

When you buy foil for packaging or printing, remember . . . every industry has one member who specializes in customer satisfaction.

ANACONDA ALUMINUM

ANACONDA ALUMINUM COMPANY • GENERAL OFFICES, LOUISVILLE, KENTUCKY



Lamination by Arvey Corp., Chicago, Ill. and Jersey City, N. J.

Acetate laminated containers continually score high where competition is the keenest. Lustrous acetate gives a package that crisp, new look that says *better quality*. Package colors become deeper, stronger . . . printing takes on new sharpness and clarity . . . and shelf life is multiplied over and over.

For pharmaceuticals, beverages, stationery, cosmetics, haberdashery, hosiery and other consumer merchandise, laminating containers with Celanese Acetate Transparent Film can give your line of products that important difference.

For names of laminators and other information, write: Celanese Corporation of America, Plastics Div., Dept. 108-F, 744 Broad St., Newark 2, N. J.

Canadian Affiliate: Canadian Chemical Company Limited, Montreal, Toronto, Vancouver.

Export Sales: Amcel Co., Inc., and Pan Amcel Co., Inc., 180 Madison Ave., N. Y. 16.

Celanese®

Acetate . . . a Celanese packaging film

World Report

Abstracts from foreign packaging magazines

GERMANY

Index to packaging machinery

The March, 1959, issue of *Die Neue Verpackung* (Germany) lists 572 different packaging machines manufactured in Germany and other countries, presented under 20 different categories, such as bag making, wrapping, cartoning, filling, sealing, etc. Each listing describes where the machine is made, its essential characteristics, speed of production, size of packages it will handle and other pertinent data, which should be helpful to the packaging engineer.

FRANCE

Rilsan—the all-French polyamide

The French packaging publication, *Emballages*, has presented a comprehensive description of Rilsan, identified as one of the nylon group of plastics, or superpolyamides. The article was abstracted in British *Packaging* as follows:

In 1932, Du Pont chemists discovered polyamide 6.6, or nylon; in 1938, I. G. Farben chemists discovered polyamide 6, or perlon; in 1942, two chemists of the Société des Terres Rares, starting from castor oil, synthesized the superpolyamide 11, or Rilsan. The Compagnie Péchiney immediately concerned itself with this development and, in 1945, the superpolyamide 11 was christened Rilsan, after the little river Risle, next to the pilot plant where the Société Organico had undertaken its technical development and commercial exploitation.

At the present time, two modern factories have been added to the production resources, one at Marseilles and the other in Valence. The Marseilles plant is an immense installation where the castor oil is converted into the monomer. In Valence, all that concerns the textile industry—filaments, fibres, tissues, fabrics—is exploited. Serquigny now directs its efforts into finding new uses and improving existing techniques and methods of conversion. More and more Rilsan is being used for packaging purposes because of its special physical and chemical properties.

The films are delivered in flat sheets, in standard widths of 500 and 700 mm. and in thicknesses ranging from three to 100 hundredths of a millimetre.

The layflat tubing is made in various widths, from 80 to 430 mm. in three, four, six, eight and 10 hundredths of a millimetre thicknesses.

Specific density of 1.04 gives the films extreme lightness.

Resistance to rupture is of the order of 7 or 8 kilos per square centimetre.

Elongation to rupture varies from 250 to 400% and the elastic limit is around 10%.

Resistance to tearing and to shattering is altogether remarkable; when tested on the equipment normally used for the testing of papers, the Rilsan proved to be outside the limits of stress imposable.

Resistance to folding, tested according to the ASTM procedure Q 03.001, on an 8/100 film was 850,000 folds in the transverse direction and more than 1,000,000 folds in the web direction before breakdown.

Clear transparency and high gloss characterize the finished film material.

In so far as chemical resistance is concerned, Rilsan shows complete resistance towards bases, non-chlorinated solvents and hydrocarbons. Its resistance to oils and greases is reported to be remarkable and this makes it of special interest in the packaging of foodstuffs. It is also supposedly impermeable to moisture and to bacterial penetration, which fits it for the packaging of foods.

Of all known polyamides, Rilsan has the least absorption of water vapor, no matter what the relative humidity. A 3/100 of a millimetre film soaked in water at 20 deg. C. takes up only 0.8% after 24 hrs.' immersion, or 1.2% after 320 hrs.' immersion. This rate, low as it is, diminishes as the thickness increases. A film thickness of 8/100 of a millimetre will have a maximum absorption of 1%.

Very low gas permeability is a characteristic. Tests show: oxygen, 0.02 by 10-9; hydrogen, 0.19 by 10-9; carbon dioxide, 0.09 by 10-9. Results are expressed in cubic centimetres of gas passing per second through a square centimetre of the material 1 in. thick, there being a difference of pressure between the two faces of 1 centimetre of mercury at 20 deg. C.

Rilsan is reportedly free from risks of toxicity, though in general other polyamides give a taint or taste to foodstuffs. There are no plasticizers and the film may safely be used in direct contact with all kinds of foods—milk, oils, fats.

The melting point is 186 deg. C. and the film will support temperatures above 100 deg. C. up to 120-130 deg. C., permitting sterilization in the package under controlled conditions. At the other extreme, Rilsan preserves its flexibility at temperatures as low as minus 45 deg. C., the field of usage, therefore, extending from this lower limit up to 130 deg. C.

For these reasons, Rilsan is effective, it is said, for vacuum packaging with sterilization after packaging. For the same reasons, it is a likely material for the packaging of surgical instruments and pharmaceutical products.

The introductory article in *Emballages* is to be followed by another dealing with actual applications and potential uses for this new material in the packaging field.

ENGLAND

Glass output continues to go up

Production of glass containers has increased 46% in the past decade in the United Kingdom, according to a statistical survey in *Packaging Review* (England). Despite competition from other materials, the glass-container industry has shown continued gains in every year but one during the past five years and at present is running ahead percentagewise to U.K. over-all industrial production, which shows gains of around 38% for the same 10-year period. In units, this means upwards of 4 billion glass containers valued at £40 million, or $112 million. Major uses for glass containers are reported as follows: for milk; wines, liquors and soft drinks; preserved foods; chemicals and drugs.

AUSTRIA

New paper-making process at lower cost

Some 275 short tons of pulp made in Austria by the ALB-Semicell process by Ybbstaler Pappenfabriken Adolf Leitner, reportedly, have been shipped to various Austrian and foreign paper mills for trial processing, although no permanent delivery contracts have yet been signed, according to *World Pulp and Paper News* of the American Paper & Pulp Assn. With regard to the ALB-Semicell process, the following information is supplied:

Contrary to known processes of producing semi-chemical pulp, the ALB-Semicell process—by impregnating coniferous and deciduous wood with monosulphite in an alkaline medium at proper cooking conditions—sulphonates lignin and transforms it into a thermoplastic form without dissolving it. By mechanical treatment of the impregnated wood in the shape of logs or chips, a bright pulp with a high content of long fibres is obtained. This semi-chemical pulp is fully utilizable in place of unbleached sulphite pulp in vari-

ous papers. Because of the favorable long-fibre content, together with the fineness of ALB-Semicell pulp, such paper reportedly has a 10-15% higher breaking length than papers with the same furnish of sulphite pulp.

If ALB-Semicell is treated with peroxide, a high degree of whiteness is obtained with a maximum loss of only 3% of the yield. As a result, this new process may replace bleached chemical pulp in the production of various paper grades. The yield of bleached ALB-Semicell amounts to about 80% of the weight of wood. Because of the higher yield and because of the low consumption of chemicals, production costs in paper manufacture may be reduced 35-40% if unbleached sulphite pulp can be replaced by the new type of pulp. Supposedly, the new pulp has a high dehydration capacity, dries faster on the dry end of the paper machine, resulting in lower steam consumption or allowing for an increase in machine capacity, respectively.

Unbleached ALB-Semicell pulp is suggested for the production of all wood-containing papers, bleached pulp, even writing paper. Good printability and smoothness seem to qualify it for outer layers of duplex and triplex board.

ENGLAND

Silk-screen printer for ampoules

An automatic silk-screen printer developed by a British firm, reportedly, will print small cylindrical containers such as ampoules, vials and cosmetic packages at speeds up to 6,000 per hour. The machine, British *Packaging* points out, has been designed to meet the need for a fully automatic and high-speed silk-screen printer capable of handling containers as well as plastic pen barrels, electrical and electronic components. Since two articles are fed and printed simultaneously, the actual speed of the machine is low.

Articles from $\frac{3}{16}$ to $1\frac{5}{16}$ in. in diameter and from 1 to 6 in. long can be accommodated. The machine will also print on slightly tapered items. Maximum size of the print area is $3\frac{3}{8}$ in. long and $2\frac{3}{4}$ in. circumference.

The equipment is reportedly simple to operate. It incorporates a sensing device to assure that no printing takes place should there be a hold-up in the feed of articles. The hopper holds a large number of articles and can be reloaded while the machine is running.

Provision has been made for an infra-red drying unit to be fitted over the conveyor chain. Quick air drying and infra-red inks have been formulated, as well as ceramic inks for firing into glass and ceramics.

FINLAND

Carton making and varnishing in one operation

Practical varnishing of cartons on the same machine on which they are made has been realized by Tako Factory in Finland, according to a report in British *Packaging*. The procedure, it is pointed out, permits the use of lower-grade board while maintaining the same standard appearance of cartons made from paperboard varnished before manufacture. One of three carton-making machines in the Finnish factory was equipped with a Jagenberg air-brush coater in 1957. Results, reportedly, have been equal to those obtained by pre-varnishing the board from which the cartons are made. The coating is applied to the carton material just before manufacture.

The maximum working width of the machine on which the coating is applied is about 314 cm. and the substance of the board employed is from 230 to 400 gm./m.^{2} Cartons produced in this way from a cheaper board supposedly are the equivalent of a bleached paperboard printed and treated in the normal manner. The uniformity of the coating allows for high-grade printing, after which the printed material may be further gloss varnished—using a minimum of lacquer —to give a brilliant effect. The coating on the machine, therefore, provides for much the same function as does the base color on a collapsible-tube printing machine. It covers the surface evenly and completely, allowing for printing of the finest detail and, at the same time, provides a non-absorptive substratum for the final gloss varnishing or lacquering of the container.

HOLLAND

New type of pleated-paper-cup machine

A Dutch machinery firm at Wormer has brought out a machine for making pleated paper cups, used in the chocolate and confectionery trade, which reportedly eliminate the drawbacks of nested pleated cups that give trouble to factory hands in the chocolate plant. According to *Verpakking* (Holland), the new pleating machine works with two sets of five heated tools, which are fed by means of suction devices, each time positioning one paper disk from a magazine under a tool. After forming, the cups are deposited in the holes of the tray, which is transported through the machine by a chain conveyor and stacked at the end of the installation. As an alternative, the pleating machine can be directly connected with the chocolate-depositing machine, the loaded trays traveling straight under the filling heads of the latter.

FRANCE

Easy-opening flexible plastic pouches

Société Vinifruit, France, has developed a method of sealing flexible plastics pouches with an opening band that supposedly makes them easy to open without the aid of a sharp instrument. The method, suggested for pouches containing powders or liquids, is described in *Emballages* (France). It entails a modification of heat-sealing or high-frequency welding equipment. The adjustment provides for making the openable portion of any desired size so that the container can be used for drinking from directly, or for inserting a drinking straw in a smaller opening. The method may be applied to all plastic films, but particularly to those which normally are difficult to tear. A tab is formed and the pouch is torn open to any required extent by pulling this tab. Reportedly, the method has been applied successfully to fruit drinks packed under sterile conditions.

ENGLAND

White-clad coal men deliver multiwall sacks

A feature of a service that promotes cleanliness and easy handling are white-uniformed coal men in England who deliver regularly to the housewife's door pre-packs of coal and coke in 28-lb. and 56-lb. multiwall sacks. Already more than 200 merchants throughout Britain are delivering these convenient packages to householders, according to *Packaging Review*, uniformed as neatly as the milkman. Price of the pre-packaged coal is slightly more than the unpackaged article, but consumers are pleased to pay for the convenience and assurance of guaranteed weight and quality. The bags which are being used for this purpose are two-ply for the 28-lb. quantity and three-ply for the larger one.

FRANCE

New closure for carry-home retail bags

A convenient closure for paper bags used for soft goods in department and other types of retail stores after they are filled is effected by a patented method involving the use of a short portion of paperboard tube which thereafter forms a lifting handle. The tubing, according to *Emballages* (France), is threaded on a cord in such manner that the tube can be used to push the cord through pierced holes in the upper part of the bag when the tube itself is drawn through and slid along the cord to form the handle.

For additional information, write: World Report Editor, MODERN PACKAGING, 575 Madison Ave., New York 22.

S.I. POLYETHYLENE NEWS

A series for plastics and packaging executives by the makers of PETROTHENE® polyethylene resins

U.S. Industrial Chemicals Co., Division of National Distillers and Chemical Corporation — 99 Park Ave., N. Y. 16, N. Y.

Packaging Notes

Polyethylene pouch in a carton is being used to package frozen berries and fruits packed in syrup or sugar. The heat-sealed pouch is made of polyethylene-coated paper. The polyethylene coating holds liquids inside the pouch even when fruit is thawed. A tear string is built into the pouch for easy opening. A carton and overwrap complete the package.

The new pack reportedly offers substantial savings in packaging costs and labeling versatility.

Heat sealable multiwall bag features staggered plies at the open end, leaving polyethylene-coated inner ply exposed for direct heat sealing. After sealing, adhesive is applied to the tops of the outer plies. The entire lip is folded over and pasted to the outside of the bag. The sealing machine then adds a strip of gummed tape across the lip. The new coated bags are said to be especially suitable for packaging hygroscopic, deliquescent, corrosive and semiliquid products.

Bag sealer closes open-end shipping sacks with a polyethylene-coated kraft paper tape. The machine caps a 5 inch wide tape over the open end of flat tube bags by means of heat and pressure. The molten polyethylene seals stitching perforations, making a tight, moisture-resistant seal. The sealer operates at production line speeds and is said to cut costs over conventional wax sealing. Taped bags are expected to be used soon for shipping a wide range of chemicals and fertilizer materials.

U.S.I. Appoints Two

Ralph M. Knight

William H. Rader

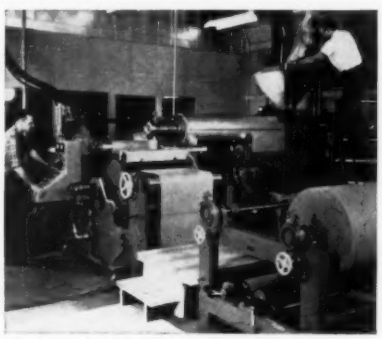
Ralph M. Knight has been named Manager of Polymer Planning and Applications by U.S.I. Mr. Knight will be responsible for planning and co-ordination of U.S.I.'s polymer development program. Mr. Knight previously has served U.S.I. in various polyethylene production capacities.

William H. Rader has been appointed PETROTHENE Polyethylene Production Manager. Mr. Rader has been Assistant Production Manager, and before that was in charge of polyethylene resin development programs at U.S.I.'s Tuscola plant.

Polyethylene-coated Milk Cartons Ready To Capture Volume

Leakproof Cartons Finding Favor with Retailers and Public

Polyethylene-coated milk containers are appearing on the market in selected areas and promise to take over a large share of the market now held by wax coated cartons. Although some machinery and production problems remain to be solved, the polyethylene-coated cartons have met with a favorable response with consumers and retail outlets.



The board coating machine above, located in U.S.I.'s Polymer Research Laboratory in Tuscola, runs at speeds equal to or greater than commercial equipment, duplicates the latter in everything but width.

Chief advantage of the polyethylene containers for both retailers and public is that the polyethylene cartons are virtually leakproof. Leakage of wax coated cartons has been a major problem. Polyethylene coatings not only provide stronger seals but also are more flexible at low temperatures and do not flake off as does wax. Polyethylene coated cartons are also scuff-resistant and may be printed easily.

Two Types Already on Market

Two types of containers are actually in use: a tetrahedron-shaped carton holding a pint or less, and a conventionally shaped full quart container. Initial use of the new polyethylene-coated milk cartons has been by dairies whose distribution systems involve rough or repeated handling that tends to damage conventional containers. New advances in container fabricating machinery, however, are expected to extend the use of polyethylene containers into major dairy markets.

Film Producer Offers Packaging Machinery Guide

A producer of polyethylene-coated films has issued a manual of automatic film packaging machinery available to users of polyethylene film packaging. The manual gives specifications for leading machines and describes such capabilities as speed, type of film that can be used, and package sizes each machine can handle.

The manual also contains conversion tables for calculating the yield of different film and paper combinations.

U.S.I. Opens New Sales Office in San Francisco

U.S.I. has established a new sales office in San Francisco to keep pace with the needs of customers in central and northern California and the Pacific Northwest. The address of the new office is: U. S. Industrial Chemicals Co., 220 Montgomery Street, San Francisco 4, California. The telephone is EXbrook 7-3250.

The new office will be tied into U.S.I.'s automated communications system through Pacific Coast headquarters in Los Angeles.

U.S.I. To Feature Cast Film At London Plastics Show

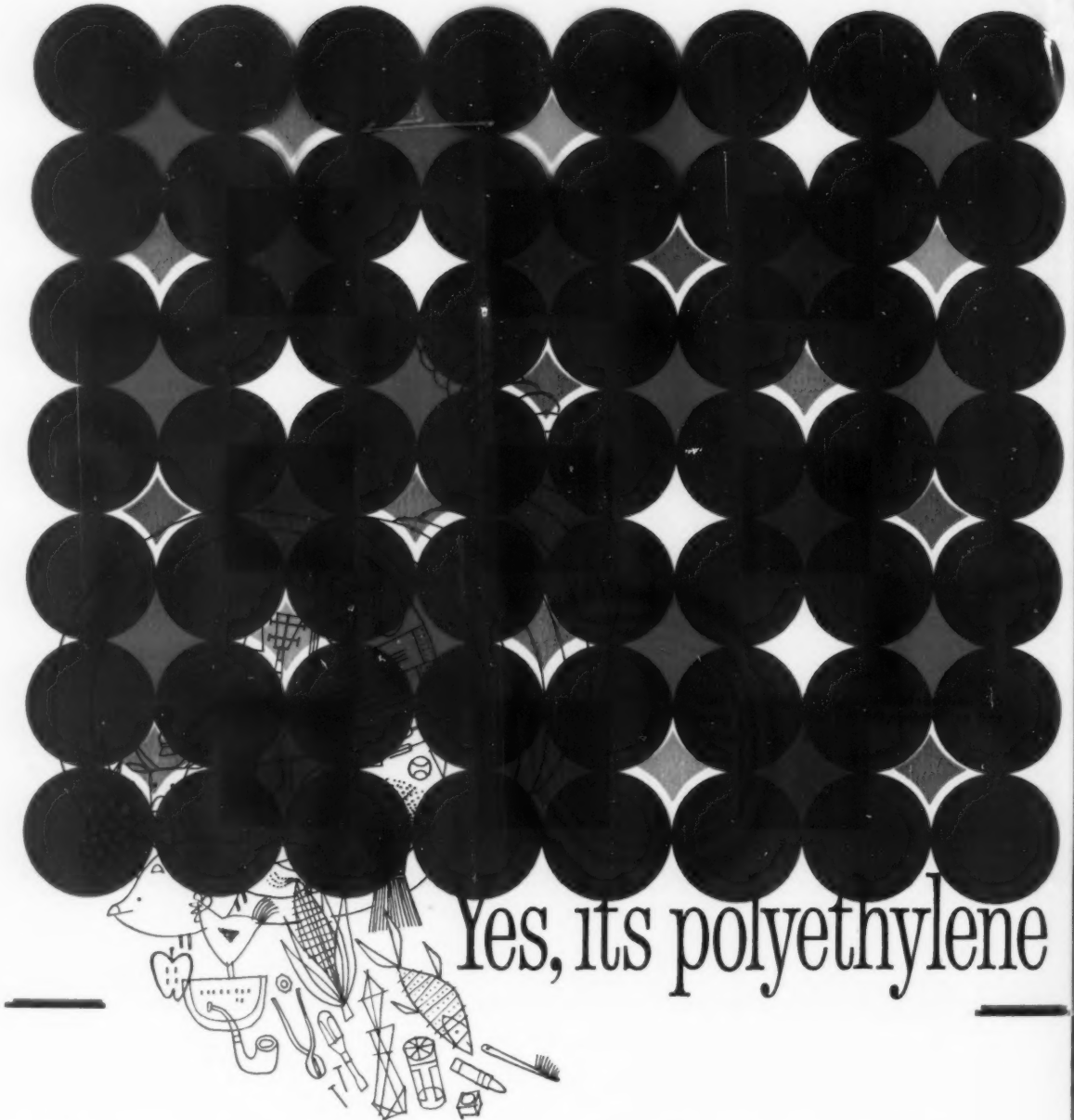
Cast polyethylene film will be demonstrated to the international market for the first time at the U.S.I. exhibit in the International Plastics Exhibition to be held in London, June 17-27.

Side-weld bags of ultra-clear PETROTHENE cast film will be made in the U.S.I. booth. Cast film was first introduced to the American market by U.S.I. last year.

In London, U.S.I. will also show packaging films made from PETROTHENE resins. A special feature of the exhibit will be a demonstration of how polyethylene garment bags are used by commercial dry cleaners to speed up customer identification of garments and to protect garments after they leave the cleaning establishment.

DO YOU HAVE a new polyethylene packaging development you'd like the industry to know about? Make it routine to send your information on new developments to U.S.I. POLYETHYLENE NEWS.

Address the Editor,
U.S.I. POLYETHYLENE NEWS, U. S. Industrial Chemicals Co., Division of National Distillers and Chemical Corp., 99 Park Avenue, New York 16, N.Y.



Yes, its polyethylene

Add brilliant printability to the clarity, toughness and other well-known advantages of polyethylene film, and you have a packaging material that can be a powerful merchandising tool for your products. Polyethylene film can be economically printed with clear, bright colors at high speeds and with sharp registration and good ink adhesion. Packages can be formed on automatic equipment—sealed by heat-sealing or with adhesives.

Opens New Packaging Film Markets

Package designs that combine sparkling, multi-color printing with polyethylene film's clarity open up new packaging and merchandising opportunities for you. Printed film is now being used for dry-cleaning garment bags, produce packaging, soft goods overwrap, dairy and meat packaging, laundered shirt packaging, and many special purpose applications where visibility, eye-catching color, and protection can be combined in a single package to give the product maximum sales appeal.

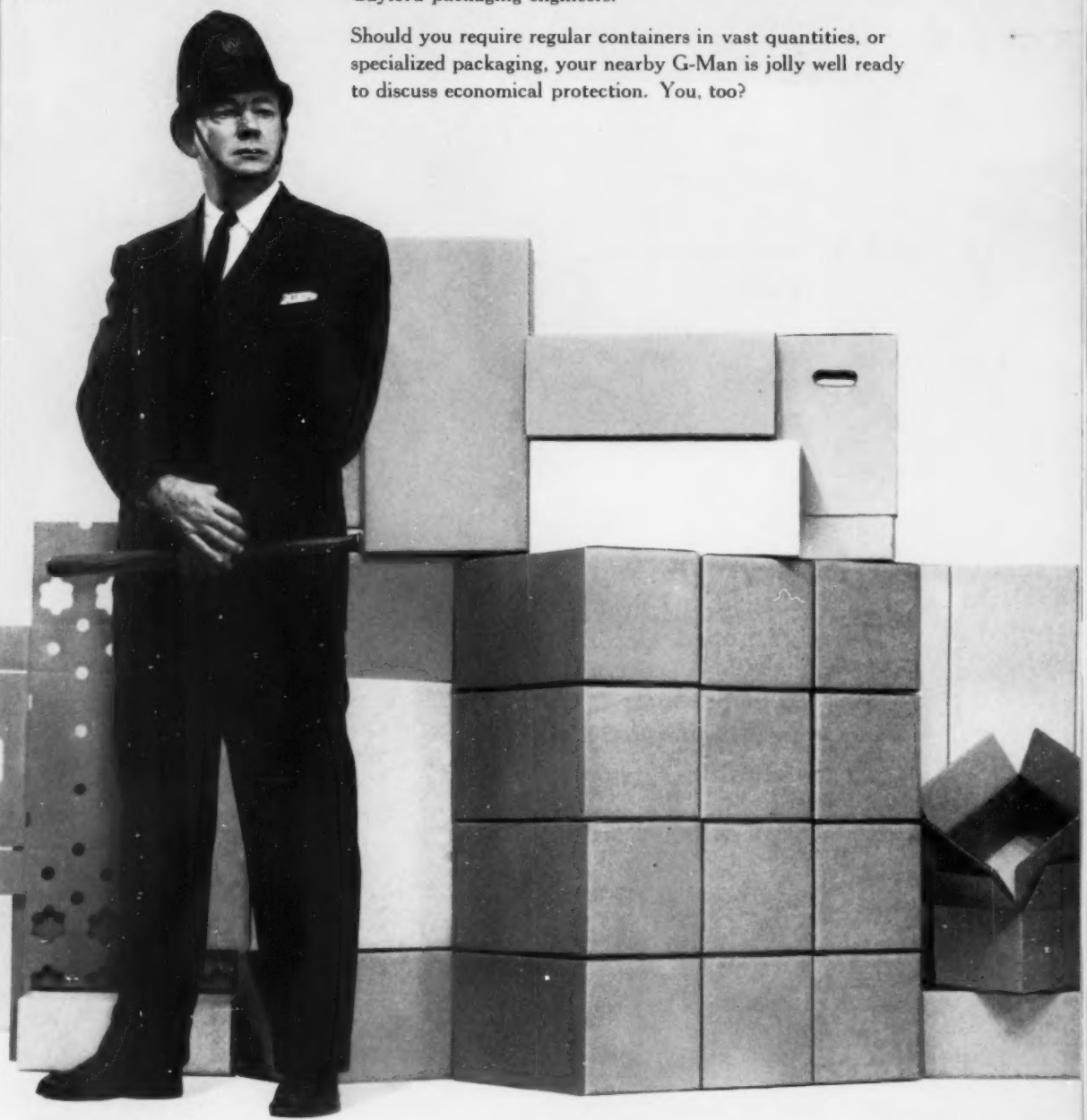
When you investigate the merchandising possibilities of printed polyethylene film for your packaging needs, ask your supplier about the special advantages of film made from U.S.I. PETROTHENE® polyethylene resins. In addition to excellent printability, these films offer greater clarity at a given strength (or greater strength with no loss in clarity). PETROTHENE made films are available in a wide range of thicknesses, with a combination of special properties to meet your every packaging need. Your supplier will be happy to advise you about them.

U.S.I. INDUSTRIAL CHEMICALS CO.
Division of National Distillers and Chemical Corp.
99 Park Ave., New York 16, N.Y.
Branches in principal cities

GAYLORD PACKAGING
GIVES PRODUCTS SAFE-CONDUCT

Nothing like a feeling of security when products get their travel orders, what? Gaylord corrugated boxes give safe-conduct. Strong, stout, sound, snug.
Special materials, adhesives. Most ingenious chaps, Gaylord packaging engineers.

Should you require regular containers in vast quantities, or specialized packaging, your nearby G-Man is jolly well ready to discuss economical protection. You, too?



GAYLORD
CONTAINER CORPORATION

Gaylord Boxes

HEADQUARTERS, ST. LOUIS
PLANTS COAST TO COAST

DIVISION OF **Crown Zellerbach Corporation**

Cast 2-mil film from regular production run using PETROTHENE 239-27, printed in line gravure in six colors.

Yes, it's polyethylene

Add brilliant printability to the clarity, toughness and other well-known advantages of polyethylene film, and you have a packaging material that can be a powerful merchandising tool for your products. Polyethylene film can be economically printed with clear, bright colors at high speeds and with sharp registration and good ink adhesion. Packages can be formed on automatic equipment—sealed by heat-sealing or with adhesives.

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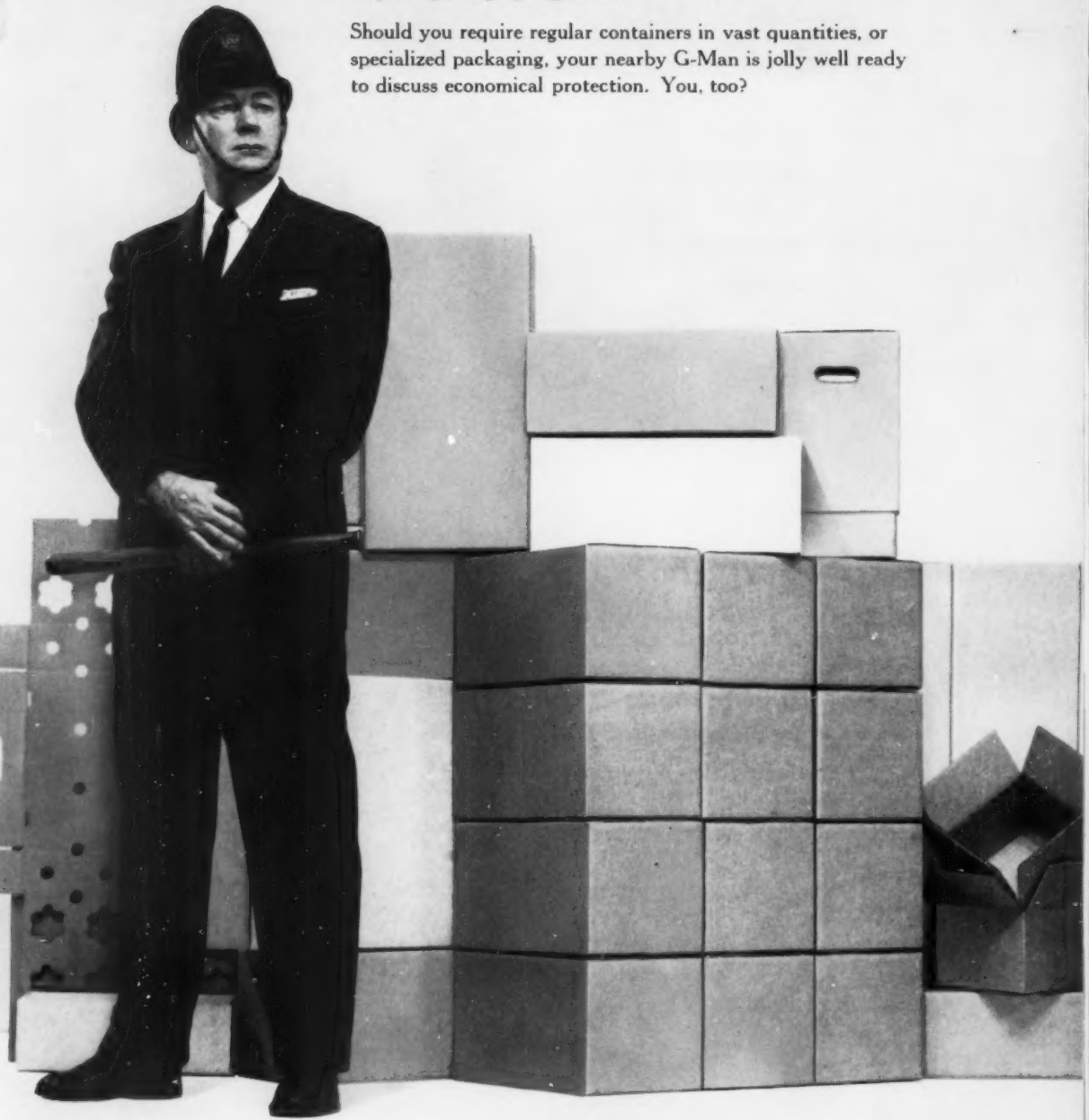

GAYLORD
CONTAINER CORPORATION

Gaylord Boxes

HEADQUARTERS, ST. LOUIS
PLANTS COAST TO COAST

DIVISION OF **Crown Zellerbach Corporation**

Mercury Machines PACE SETTERS FOR THE FOLDING CARTON INDUSTRY

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ROTOGRAVURE
PRESS

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ROLL-to-ROLL
production on
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Editorial Memo

Shows and conferences don't mix

The AMA Packaging Show in Chicago was a resounding success, as the facts and figures elsewhere in this issue will attest. It was bigger in area, more colorful and more elaborate than ever before. As always, it was well and smoothly run. If the attendance, which came to 27,750, was off more than 5,000 from the last previous Chicago showing, exhibitors were just as happy—for the drop could be attributed to the new $2 admission fee which skimmed off the freeloaders and sightseers.

The AMA Packaging Conference at the same time, from the attendance standpoint, was something less than a success. The Conference, also, was well organized and well run, and it was comfortably housed in the Palmer House. But total attendance for the three days came to just 750. Last year in New York the Conference attendance was 400, out of 35,400 at the Show.

Generally speaking, over the last five years, interest in the concurrent Conference has been declining just about as fast as interest in the Show has been increasing.

When only one in 50 of the Show visitors feels inclined to turn up at the Conference—despite the best efforts of AMA to put on a worthwhile program—isn't it about time to call it off?

Back in 1931, when the first Packaging Show was held in a hotel parlor in New York, with 34 exhibitors, there was some concern as to what kind of crowd would be drawn and it was decided to have a conference in conjunction to give the whole thing importance and respectability.

However right that idea may have been in the beginning, it has long since lost its validity. It is no longer a problem to get crowds to the show; it appears that the problem is to hold them down. As an educational event, the show must come first in any packaging-man's book.

We believe in conferences and we believe in shows, and we think the two should not be mixed. The AMA itself does an excellent job through the year with its program of packaging seminars, clinics and workshops. The Packaging Institute has its big Annual Forum and many smaller meetings. The show is something else again and it simply can't be covered adequately on a part-time basis.

The average working packaging man spends no more than two or three days at a show. From a sampling of some of the conscientious and harrassed few who shuttled back and forth in Chicago from the Palmer House conference to the Stockyards show, trying to do justice to both, we'd say a vote would be practically unanimous for one thing at at time.

In our opinion, the money, time and talent expended on the concurrent conference could much better be devoted to a separate packaging conference at a time and place that would not compete with the show.

The Editors

Modern Packaging, Executive-Editorial Offices, 575 Madison Ave., New York 22.

PAPER NEEDS THE "TOUCH OF TALENT"

Seventeenth century papers used by the Dutch were generally hand made from flax or rags. But it took the genius of a Rembrandt to turn this paper into a treasured work of art. Paper used in today's packaging also needs a "touch of talent", to do a better sales-job for you. Nashua's talent with paper can give you packaging that helps your products make a better showing at retail level.

NASHUA PACKAGING TALENTS AVAILABLE TO YOU . . .

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Package Engineering • Coordinated Packaging
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Nashua Corp., Nashua, N. H.,
Nashua (Canada) Ltd., Peterborough, Ontario.

NASHUA Corporation

MODERN PACKAGING
June 1959 Vol. 32 No. 10

PHOTOS J. J. NEWBERRY

Elegant new stores *in modern shopping centers are as different from the original dime-store concept as the supermarket from the corner grocery store. Under one roof shoppers can buy anything from apparel to power mowers as variety stores become more like department stores. Before the advantages of complete self service can be realized, say variety-store men, the big problem to be overcome is still soft-goods packaging.*

What's happening to the 5 & 10?

Pressure for better packaging grows critical as variety-store men search for ways to beat the profit squeeze with cost-reducing operation and a new philosophy of trade-up

The old red-front 5 & 10 is passing into limbo as surely as the corner grocery store gave way to the supermarket. In today's merchandising scramble,[1] variety stores are moving in all directions.

And as they move further and further away from the original dime-store concept toward large departmentalized stores where shoppers can buy almost everything under one roof, a trend to sharpened packaging techniques is seen that could influence thinking in American merchandising of all types for a long time to come. Right now this changing scene deserves some close watching by all packagers —not excluding the food industry. The reasons for this are obvious:

- Annual variety store sales of $3.9 billion are the highest in history, but average profits are being whittled down from the coveted 7% to around 4½% by continually increasing the operating costs of

[1]See "The Mix-Up in Merchandising," MODERN PACKAGING, Aug., 1957, p. 87.

doing business. Better packaging is one way to help reduce selling expense.

• The rapid extension to complete self-service check-out calls more insistently for packages that sell themselves without the aid of the salesperson behind the counter in the old-style variety store. Out of a total of 4,516 stores operated by nine large national chains, 1,514 are now full self-service stores, an increase from 9.3% in 1954 to 33.5% in 1957, according to Harvard Business School's variety-chain-operation studies.

• The new philosophy of trade-up and expansion into more extensive lines of merchandise is inspiring a universal appeal for improved package styling. New stores are being designed to overcome the last lingering association with the "5 & 10"—now a misnomer. The country's top architects and designers are being employed to create a new image of a smart place to shop at an advantageous price. Packaging must reflect this objective.

• Private-brand-label packaging is being given new emphasis as a means of meeting price competition from other outlets and to build acceptance for merchandise handled exclusively.

To sense all this it is necessary to visit only one of these new large units in a modern shopping center —or to read such statements as S. S. Kresge Co. has just published in its annual report:

"Who would have guessed 10 years ago that today thrifty shoppers could walk into many Kresge stores and purchase . . . bicycles in models for brother and sister . . . a power mower for dad . . . an impressive line of furniture . . .many name-brand appliances—coats, jackets and other garments in wide price ranges?"

The trend, as *Variety Store Merchandiser* points out, is definitely toward the closing of smaller obsolete units and the opening of large ones that look more and more like department stores.

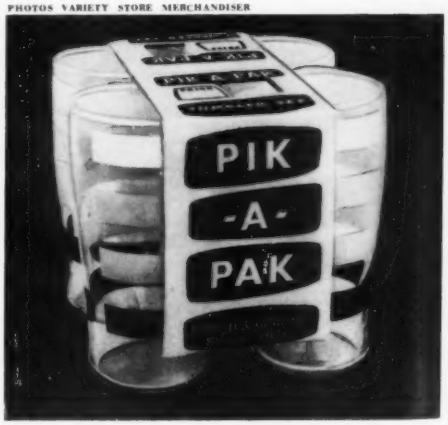
And with its technique of merchandise accessi-

Packages that variety stores like

Preferred constructions are revealed by these prize winners selected from the *Variety Store Merchandiser* packaging competition.

PHOTOS VARIETY STORE MERCHANDISER

Upgraded packaging *that permits more advantageous pricing. A doll with accessories in a transparent package designed for re-use as a toy high chair brings a better price than an unpackaged doll—and reduces markdowns.*



Multipacks *that reduce selling costs. Simple paperboard constructions provide convenient six-pack units of glassware and many other items, saving hours of clerk's wrapping time.*

Blister and skin packs *that solve handling problems for numerous small items from notions to hardware. Their attractive appearance for display and neat storekeeping is hard to beat and they help to cut pilferage.*

bility and the quick sales transaction that packaging helps to foster—either at section cash desks or with complete self-service check-out—the variety store is providing the kind of rapid service shoppers want today in a way that may leave the traditional department store far behind.

Modern variety-store operation thus becomes a vast new retailing laboratory in which to study the packaging of almost everything. Big chains estimate that their central buying offices pass on more than 100,000 items—and some, significantly, are getting into packaged foods.

Significant of this new emphasis was the recent packaging workshop meeting of the Package Designers Council in the S. H. Kress store on Fifth Avenue, New York, where, through the courtesy of the Kress management, 168 variety-store men, manufacturers, designers and marketing men gathered to study at first hand—department by department, after store hours—specific variety-store problems.

Kress merchandise managers were on hand to single out the particular packaging problems of each department. Examples of good and bad packages were picked off the counters and brought back to the meeting for criticism and approval. The selections represented an impressive sampling of variety-store needs.

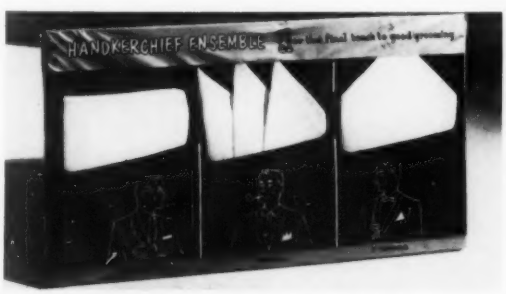
These needs are being further emphasized conspicuously today by the attention being paid to packaging by publications in the variety-store field, such as *Chain Store Age Variety Edition* and *Variety Store Merchandiser*.

It is not difficult to summarize basic requirements. Today's variety stores want packages that:

- improve store appearance with better styling
- reduce pilferage
- reduce markdowns
- facilitate stock handling and inventory
- provide for automatic re-ordering
- carry complete selling information—(how many,

Try-it-yourself ideas *that permit examination without disturbing the package. Paper Mate pen is clipped securely to card to discourage pilferage, but in a manner that shopper may try the ball point.*

Carry-home packs *that cut time-consuming wrapping, double for display. They speed sale of garden equipment, hardware, sporting goods, larger housewares and appliances.*



Ensemble packages *that up the unit of sale. This printed, film-wrapped package encourages gift purchase of five men's handkerchiefs. Multiple-unit sales are successful for many more items that are now packaged that way.*

Graphic treatments *that have greater appeal for today's more discriminating shoppers. Significant of the trend is new Modess packaging that won "The Best Package of the Year" award.*

Markdowns from soiling *on rack-hanging baby dresses are being reduced materially by polyethylene garment bags like Joseph Love, Inc., is using. Prefabricated bags are applied from a roll by means of simple loading device. Firm can pack up to 900-doz. children's dresses per day. Tubular film by Gailyn Packaging Co., New York, using Bakelite polyethylene.*

Private labels *help the variety chain to meet price competition from other outlets; build acceptance for merchandise handled exclusively. Trend is to feature store's own name prominently as illustrated by these clearly identified, smart Newberry shirt packages.*

Grant Maid family *for laundry accessories illustrates aim of W. T. Grant's packaging division to give new emphasis to store name. Meaningless brand names are being gradually eliminated.*

how much, what it is for and how do you use it)

- speed the sale
- increase the unit of sale
- meet the variety store's particular display requirements.

And the best way to find out why is to go, as MODERN PACKAGING did, to some of the large new variety stores and talk with merchandise people faced with the selling problems.

Package upgrading

Variety-store men are looking critically at gaudy, cluttered graphic treatments and flimsy packaging that results in untidiness and markdowns. If their beautiful new stores are to win the desired reputation for quality and smartness, then this impression must be conveyed straight through to packages the shopper sees on display, takes home and associates with the store where they were purchased.

These men are evaluating the package today as carefully as the product. And they are bringing pressure to bear on manufacturers to give them every assistance in providing the right package. Carrying 20,000 to 40,000 items in the average variety store, as they do (in contrast to the average supermarket's 5,000 to 10,000), they point out that there is little time to develop the details of package design and construction.

Soft goods—big problem

Before the advantages of complete self service can be realized, the greatest need, the variety men feel, is in the area of soft lines—women's slips, underwear, domestics, linens, draperies, infant's wear, men's, boys' and children's wear.

They want more efficient packages to minimize the functions of a salesperson, thereby reducing payroll expense. They can single out many soft-goods packages that do not give essential selling information with respect to quantities, sizes and styles contained. They want more package constructions that will cut down losses from shopwear.

Everywhere variety-store retailers are enthusiastic about transparent film packaging—but they would like to see still clearer polyethylene, or the equivalent, with better aging properties.

One apparel section manager pointed to some polyethylene bags for sweaters. "They are not clear enough in the first place," he said. "They turn yellow in a short time and collect dust from store traffic that detracts from the color of the contents." He pulled out a blue sweater, then a red one, to show the actual fresh bright colors of the merchandise in contrast to the dull appearance in bags.

Despite all the constructions that package suppliers have offered, neither the sealed bag nor the

partially opened bag that permits shopper examination is the answer to all soft-goods problems.[2]

"If you have bags with flip-over cuffs," said one merchandise manager, "customers don't just put their hands in to feel—they take the merchandise out anyway. You should see this sweater counter after a special promotion!"

"And if you have sealed packages, they tear them open," said another, describing his trials with house slippers, that customers must try on, in sealed polyethylene bags.

Variety stores are still hoping for solutions to such problems.

They are impressed with an open-front polyethylene bag introduced by W. T. Grant for blouses. The open section permits the shopper to feel the fabric and see it without color distortion of the film, while top and bottom of the blouse—where most soiling occurs—are protected.

They are enthusiastic about a new card for Paper Mate pens, constructed to permit trying the pen without disturbing the package.

New brand image *created for Kress stores that eventually will appear on all the chain's private-label packaging is significant of trend to variety-store upgrading as a smart place to shop. Design, Robert G. Neubauer, Inc.*

Pilferage

Variety stores know there has been a marked increase in pilferage since the swing to self-service check-out. They can measure it by the higher percentage of "shrinkage" they are experiencing. Just how much of this is due to shoplifting or to other causes, they are not prepared to say, but as one merchandise manager of drugs puts it, "All I know is that we can't stand a pilferage loss of more than 1%."

For this reason, the variety store is receptive to any packaging idea that helps to discourage pilfering, but merchandise men agree that they have yet to see the package that will, in all cases, completely stop the light-fingered shopper.

To prove how easy it is to make away with items in a self-service variety store, one sales-promotion manager recently arranged with a business associate to go through one of his chain's stores to see

[2]See "How to Get Rid of the Handle," MODERN PACKAGING, April, 1957, p. 87.

Smarter package styling *is a number-one essential for the spruced-up interiors and modern fixturing of today's variety stores. Gaudy, cluttered graphic treatments and flimsy packaging are now being regarded critically.*

how much could be taken without getting caught. Without detection, the men came away with everything from razor blades to sport shirts, paying only for a small hardware item as he passed the check-out counter.

"Why, we even caught a shopper making away with a baby stroller!" said one store man. "She simply carried her baby into the store, put it in a stroller as a push cart in which to conceal all manner of other items picked up along the way!"

Sales boosters and time savers

Take-home packs. Variety stores are asking for more display containers that can double as take-home packs and eliminate time-consuming wrapping. Among the merchandise categories where more of such packaging would cut operating costs and speed the transaction are glassware, larger housewares, hardware, sporting goods, tools and appliances.

Blister and skin packs. Seemingly, the variety-store-man's dream come true is the thermoformed carded package. It is solving the handling of all manner of small items from notions to hardware. It's attractiveness for counter display is hard to beat, they say, and helps reduce shoplifting.

Tags and seals. Among newer and more extensive lines the variety store is adding are some kinds of merchandise that sell better unpackaged—certain apparel items, lighting fixtures, furniture, large appliances and household equipment. These demand well-planned tags and labels which should be not merely price tags, it is pointed out, but should provide brand identity, complete product information and instructions for use.

Price marking. Variety stores want packages that are pre-ticketed for price, wherever this is feasible, to save time and labor. They would like to see more pre-price ticketing in such categories as drugs, cosmetics, toiletries, household chemicals and cleaning compounds. This is particularly feasible for variety stores, since they tend to stick to standard prices and seldom indulge in sales or penny-cutting as department stores and supermarkets do.

Variety stores frown on packages that hog shelf and counter space, the same as the supermarkets do. They assign space in relation to the rate of sales and dislike display packages that are unnecessarily large. They still require package sizes planned to fit the dimensions of standard variety-store counter bins, although new fixturing may eventually change this traditional specification.

It should be remembered that variety stores do not want over-packaging that adds unjustifiably to the price of an item—but they are on the look-out for dual packs and multipacks that increase the unit of sale. They can also point to upgraded packaging that brings a better price for an item: dolls with accessories in acetate boxes that sell for $2.98 (plus fewer markdowns) instead of $1.98 for dolls alone without packaging; pre-packaged ribbon lengths that up the unit sale to 29 cents instead of the average 15 or 20 cents.

Handling economies

Like all other retailers, variety stores are looking for packaging that facilitates stock-keeping and inventory. Right now one of the most discussed subjects is the inclusion of split-ticket tabs and cards for use in automatic ordering systems, which some variety-store people hail as the most important advance in 20 years in cutting operating costs.

In stock rooms, the [*Continued on page 200*]

NEW

Sales increase *when package is right. Multiple Products Corp. reports far greater sales for its unbreakable polyethylene model pirate ship and accessories after switching from a window box to a polyethylene bag giving full view of contents. Bag saves counter space, too.*

OLD

PEPPER BY THE PUFF

Cellulose acetate 'shaker' provides dispensing convenience in disposable container suitable for table use

With either the traditional shake or the more modern finger-pressure "puff," British housewives are dispensing pepper from a new, disposable, transparent plastic "pepper pot" being introduced as a replacement for conventional metal-end fibre cans and attractive enough to be used at the table.

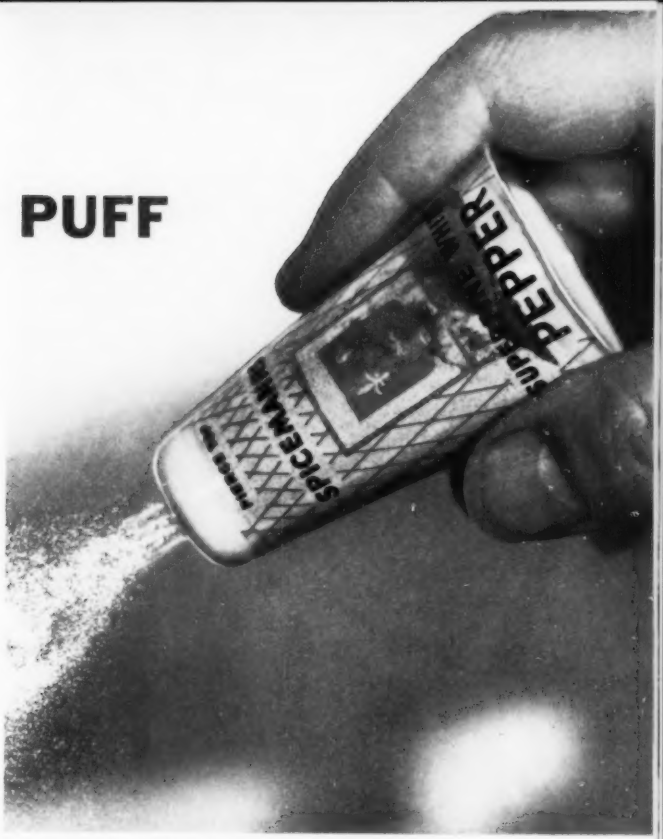
Made of plasticized cellulose acetate, the new conical container is the first example on the British market of a package which has already been successful on the continent, where many millions have been produced annually for varying weights of pepper.

In Great Britain the application is by Spicemanns, Ltd., Glasgow, for ¾ oz. of white pepper. Although the cost is a little more than twice that of the metal-end fibre container, it is expected that the convenience appeal of this attractive package will encourage its use for other powdered products not needing water-vapor protection, but suited to dispensing by either shaking or "puffing." Housewives reportedly like the fact that they are spared the messy job of cleaning and filling re-usable shakers.

The body of the container is a pre-cut blank made from 5-mil transparent cellulose acetate pre-printed in rolls; the cap is 8-mil white opaque cellulose acetate with dispensing indentations, made when the cap is formed and later punctured by the consumer. A recessed base plug, made of the same material as the cap, is applied after filling. As with the plug, the side seam is machine welded with an acetone fluid; the plug is machine inserted into the inverted shaker. With new semi-automatic equipment, the line runs at speeds up to 60 a minute. The container is letterpress printed in red and black.

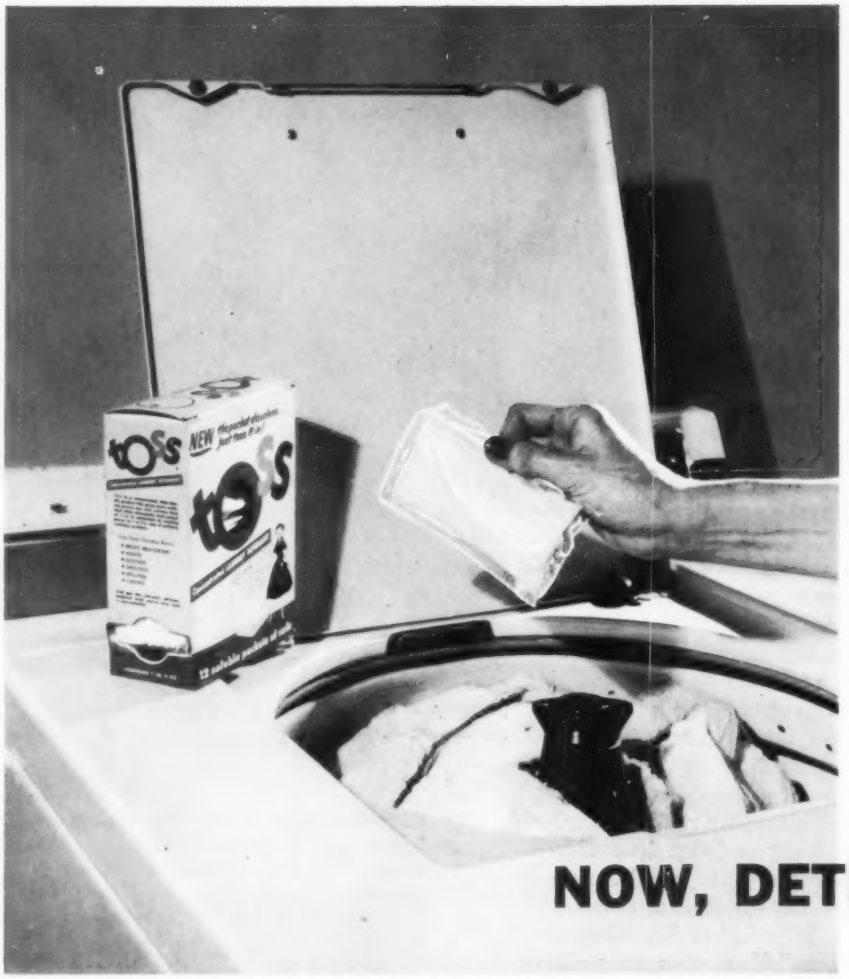
Costing approximately 1½ cents apiece, the new shaker, filled with ¾ oz. of product, retails for about 10 cents in comparison with the same price for the composite container that holds one ounce.

SUPPLIES AND SERVICES: Containers by E. S. & A. Robinson, Ltd., British Tubophane Div., Bristol, England, under license from Tubophane S. A., Paris.



Squeeze or shake, *new British container gives housewife a choice of puffing or sprinkling pepper from attractive, two-color-printed, plastic cone-shaped package.*

Circular unit *is devised to protect 2 doz. "pepper pots" in transit and on display on store counters. Lid becomes price-spot billboard.*



NOW, DETERGENT

Convenience *and user protection are attributes of new polyvinyl alcohol pouch containing a pre-measured amount of Toss detergent. Housewife simply drops the unit package into the machine, where it dissolves rapidly in warm wash water. Because she never touches the product itself, she avoids skin rash, sneezing and other reactions.*

Water-soluble polyvinyl alcohol film has made its long-anticipated debut in unit-of-use packaging for a household laundry detergent. For this former "laboratory curiosity" film, it marks a major breakthrough that doubtless will have repercussions throughout the billion-dollar soap and detergent industry, and in many other product fields where it is advantageous to add a pre-measured amount of a dry ingredient to water (or any liquid) without having to open the package and without the need to touch its contents.

Previous commercial applications of PVA have proved that the transparent film, with certain modifications, can be heat sealed automatically at economical speeds and that its former hypersensitivity to humidity extremes (which created critical storage problems) has been overcome.* But these earlier applications have been in product fields of relatively small volume.

The first packager to go on the market with PVA pouches of powdered detergent is Techno-Economic Services, Inc., Los Altos, Calif. Aptly named Toss, the product is being sold on the West Coast in dispenser cartons. Each carton contains 12 of the individual 2-oz. pouches. Early sales reports indicate excellent consumer acceptance, the company says.

*See "Disappearing Dye Pouch," MODERN PACKAGING, Oct., 1958, p. 109; "PVA Shields a Poison," MODERN PACKAGING, Feb., 1959, p. 94, and "PVA Powder Pouch," MODERN PACKAGING, April, 1959, p. 282.

User convenience is the merchandising factor that is expected to win for Toss a substantial share of the home-laundry detergent market—and that should open the gates for a mass influx of similar products in PVA packages. The 3-by-5-in. unit package contains the correct amount of detergent needed to do an average washing-machine load of laundry. The housewife simply removes a pouch from the dispenser carton and tosses it into the washing machine, where it dissolves completely within one minute in hot water.

Besides its obvious appeal of convenience in use, the fact that the PVA pouch contains a pre-measured amount of detergent eliminates product waste caused by accidental spilling or overfilling. And, says the company, there is no danger of the housewife contracting skin rash or suffering the allergic reactions often associated with strong detergents, because she never opens the unit package, nor are its contents released into the atmosphere.

Techno-Economic Services also claims that its water-soluble detergent pouch plays an important part in the actual laundering cycle. As it dissolves, the film itself reportedly adds suspending power to the detergent solution, to prevent soil particles from being redeposited on the clothes.

Toss detergent is packaged on new automatic machinery developed by Techno-Economic Services' contract packager. The packaging equipment was designed specifically for forming, filling and sealing PVA pouches.

The new machine is reported to form pillow-type pouches at speeds of more than 120 per minute per web. Considering that most packaging machines now available for running PVA operate at about 35 to 40 per minute, volume production is achieved at lower cost than heretofore.

After the automatic forming, filling and sealing operation, the unprinted pouches are packaged, in units of 12, in a colorful, tuck-top folding carton. On one side panel of the carton, near its recessed bottom, is a perforated tab that the housewife strips off at home to convert the consumer package into a convenient gravity-feed dispenser.

On the carton's front and back panels, the center of the letter "O" in the "Toss" brand name is die cut to afford visibility of the pouches inside and to indicate to the user when her supply is low.

Because the dispenser carton does the promotional job for Toss (both at the store level and in the home), it has not been necessary for the packager to print the individual pouches. Thus, additional packaging economies have been achieved.

SUPPLIES AND SERVICES: Cast "Reynolon" PVA film by Reynolds Metals' Plastics Div., Richmond 18, Va. Dispenser carton by Schmidt Lithograph Co., 461 Second Ave., San Francisco 7. Contract packaging by William Steven Co., 2520 San Fernando Rd., Los Angeles 65.

IN PVA

Unit pouches for home-laundry use, formed, filled and sealed at the new high speed of 120 per minute per web, bring water-soluble film across the threshold of its biggest future market

Dispenser carton *permits easy one-at-a-time removal of individual pouches after the user strips off perforated tab near bottom of side panel. Die-cut opening on carton face offers a fast, visual check on the supply of product remaining.*

One product, two markets

How do you merchandise the same product simultaneously to two different markets? A sales-making answer, proved by the experience of Granny Goose Foods, is through package design geared specifically to each of these markets.

In planning the introduction of Krazy Korn—large, toasted corn kernels imported from Peru—the packager decided that its logical appeals were to children (as a between-meals snack) and to adults (as a party tidbit). Working with its design firm, the company chose cellophane bags as the packaging medium, to give visibility to the king-size corn kernels. A small, 5-cent bag was selected as the unit for sales to children, while a large, 25-cent bag was to be directed to adults. Design on the bag for kids carries a repetitive pattern of smiling faces in white. For grown-ups, the bag header is color printed with an Inca figure (to suggest the product's Peruvian origin) and a cocktail motif. Counter-display cartons for each carry out the design themes. *Design by Walter Landor & Associates, Pier 5 N., San Francisco 11. Bags by Milprint, Milwaukee. Display cartons by Oakland Paper & Box Sales, Emeryville, Calif.*

IDEAS

New function and convenience

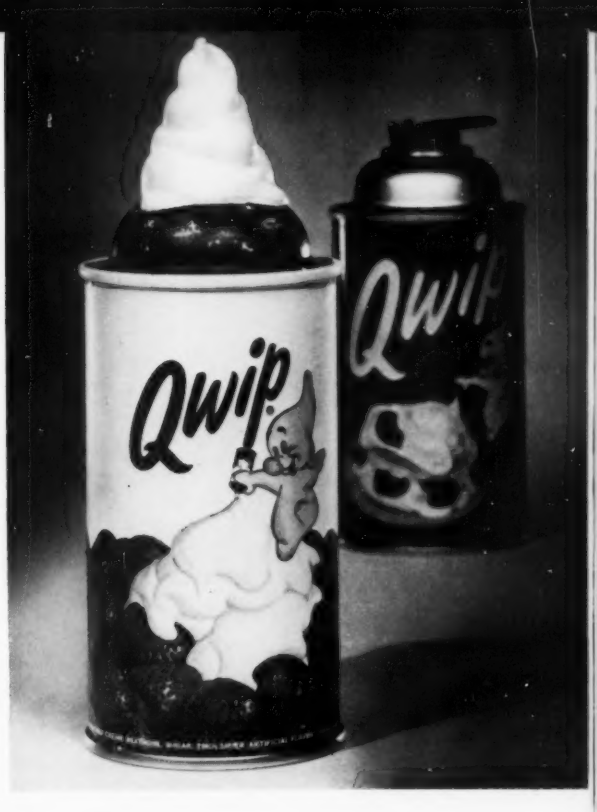
In a complete repackaging program, Frederick Post Co. is banking on the convenience of squeeze-bottle dispensing and on an unusual low-cost, break-apart multipack to upgrade its drawing inks. The company's new polyethylene squeeze bottle permits easy, drop-at-a-time dispensing of ink onto the drawing pen, eliminating the time-consuming operation of scooping ink from a bottle and then applying it to the pen. Ink bottles are packaged three each to a perforated multipack sleeve. When broken off for use, each unit of the multipack becomes a functional part of the dispenser package. A die-cut hole in the front panel of the single-bottle sleeve exposes the plastic bottle for squeeze dispensing of ink through its tip, which projects through another opening in the top of the sleeve. Stand-up support for the bottle is provided by the sleeve's flat base.

Four multipacks are contained in the one-piece folding carton. Bottles can be sold singly, in multipacks or by the carton. *Squeeze bottles by Plax, Hartford. Multipacks and carton by Continental Can's Gair Boxboard & Folding Carton Div., 100 E. 42 St., New York 36.*

Appetizing aerosol cap

An unusual and effective way to dress up an aerosol can for greater shelf impact and consumer appeal is illustrated by the new molded-polyethylene cap for Avoset Co.'s pressure-packaged Qwip whipped-cream topping. Surface of the novel closure is molded to simulate a swirl of whipped cream on strawberries. Its significant merchandising advantage is that shoppers can recognize the product's use at a glance, without stopping to read the label.

The appetite-appealing new cap is part of an over-all can-redesign program undertaken by the packager to introduce an improved formula of the food product. The push-button dispenser valve formerly used has been replaced by a flexible spout. This feature, the company says, permits completely controlled fingertip-pressure dispensing to reduce product waste and to make it easier for the housewife to achieve decorative effects on desserts. Prominence is given to the packager's "Mr. Qwip" trademark in the lithographed can-body design. Brand name is printed in blue on a white background. *Can by American Can, 100 Park Ave., New York 17. Cap by Automatic Plastics, Berkeley, Calif.*



IN ACTION

Recipe dial for cottage cheese

A packaging plus feature that is reported to be winning increased consumer acceptance for Fairmont Foods' cottage cheese in waxed-paper containers is a two-piece paperboard recipe dial that snaps inside the rim of the recessed lid and can be removed by the housewife for continued use after the product has been consumed. The idea suggests a novel technique for upgrading package appeal—and for extending brand recognition in the home.

Called "Dial-A-Salad," the insert consists of two printed, die-cut, circular sections. The bottom section contains six different recipes that use cottage cheese as the main ingredient. The names of the recipes are printed around the border of the circle, over recipe copy and a color illustration of the completed dish. Fastened over the bottom piece is a smaller-diameter section with a wedge-shaped opening that can be rotated to bring one complete recipe into view at a time. Copy on the three-color upper section includes brand name and product data. *Container by Lily-Tulip Cup, 122 E. 42 St., New York 17. Dial insert by U. S. Printing & Lithograph Co., Cincinnati 12.*

The squeeze bottle

GREAT PACKAGING DISCOVERIES—5

THIS MONTH'S COVER

The molded polyethylene container has passed through two stages in its meteoric career and is entering a third. Originally it was simply a duplicate of a Boston-round glass bottle, offering light weight and safety against breakage at a rather high price to a very limited market. Then, thanks to the persistence of a Swiss-born chemist and engineer who made a fortune from his idea, it became "the squeeze bottle" and spread rapidly to every product it could contain which would benefit from spray or mist application.

Because of the Swiss chemist's squeeze-spray discovery, a whole new industry sprang up and volume of manufacture expanded to the point where costs were lowered, research flourished and finally new arts of manufacture, new materials and new forms of polyethylene containers were brought in to lower still further the costs and expand still further the market. Today, the polyethylene container is well into its third and greatest phase, in which it becomes the lowest-cost package for many uses strictly on a container basis—without regard for the squeeze function which started it all.

All this has happened since 1947, when Dr. Jules Montenier startled the cosmetic world by introducing his Stopette deodorant in a package such as had never been seen before. The white opaque polyethylene bottle, in what he calls a "flattened pear shape," was the first to be custom molded and the first to produce a true atomized spray from a liquid.

Stopette's success is legendary. Within six years it was selling 14 million bottles a year, had forced nearly every other deodorant manufacturer into a similar package and, beyond that, had led 2,000 other products into "squeeze bottles." A few years later Dr. Montenier, who had risked his entire personal fortune on the package, sold his business to Helene Curtis and retired a millionaire.

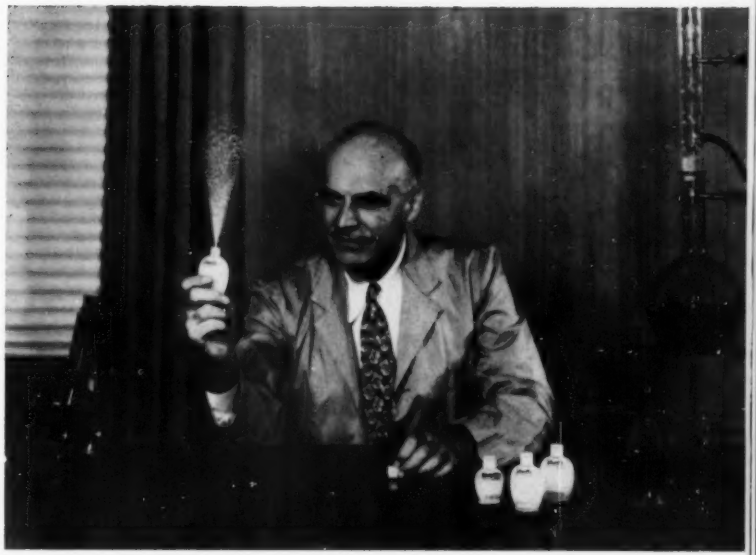
Clearly one of the *Great Packaging Discoveries* of recent years, the Stopette package was also, in 1953, the youngest member of MODERN PACKAGING's *Packaging's Hall of Fame.**

Dr. Montenier was not the first to conceive of the squeeze bottle, but he was the first to make it work. For nearly 20 years he had been seeking a package that would in itself serve as an atomizer to apply anti-perspirant with greater ease. He had the product formula perfected. He had experimented with rubber bulbs and acetate vials, and had learned that for a successful upward spray two things were necessary: an atomizing chamber or valve in the plug closure and a capillary tube leading from the valve to the bottom of the container, to control the volume of liquid fed to the valve.

The Plax Corp., Hartford, had pioneered in the blow molding of polyethylene bottles in stock, Boston-round design and by late 1945 was experimenting with such bottles as powder "puffers," directing the puff downward. Plastic bottles at the time cost five times as much as glass and it was apparent that they would not achieve a large market without some special justifying function beyond light weight and unbreakability. At that moment Dr. Montenier appeared and Plax officials recognized that he had the answer to a successful, upward liquid spray.

For the next two years Dr. Montenier spent so much time in the Plax plant that many employees thought he worked there. Not only did the atomizer plug and capillary tube have to be adapted to automatic production methods, but Dr. Montenier realized that the shape and wall thickness of the bottle would be vital to proper squeeze-spray function. These details were worked out by him,

*See *Packaging's Hall of Fame*, MODERN PACKAGING, April, 1953, p. 136.



The man who did it, *Dr. Jules Montenier of Stopette deodorant fame, is shown in this picture reproduced from* MODERN PACKAGING'S *Hall of Fame cover of April, 1953.*

in collaboration with Plax engineers, in hundreds of hours at the drawing board and in dozens of experimental molds. The result was the "flattened pear" shape of bottle, much as it appears today. Delicate control of wall thickness at critical points made the squeeze action effective.

While Plax know-how translated Dr. Montenier's ideas into automatic, low-cost production of a custom-molded polyethylene bottle for the first time, the company credits the Swiss-born chemist-engineer for the inspiration and driving force. "He was the catalyst that made the ideas work," says Hank Griffith, then sales manager of Plax.

It was an unusual working relationship. There was an unwritten agreement that in return for its help in putting his product on the market, Plax would be free to use his ideas.

Thus, when Stopette deodorant scored an immediate marketing success, Plax was prepared to meet the flood of ensuing orders from other toiletry and chemical companies, and a new package-supplying industry was launched.

Other blow molders moved into the business and shortly the blow-molded bottle was supplemented by bottles and tubes produced from tubular extrusions by a European process. Thus the molded, flexible polyethylene container has moved from virtually zero in 1947 to production of 600 to 700 million units this year and a forecast of close to a billion units in 1960.

Having virtually exhausted the products for which the original squeeze bottle was suitable, the polyethylene container is now well into its third and probably greatest phase. Interior coatings and resins of high density are licking the permeability problem which once so severely limited its choice of products. Lower costs through improved high-production methods and thin-wall design have brought several significant applications in which the polyethylene bottle became the container of choice not because it was squeezable, but simply because it was the lowest-cost package that could do the job.

Thus the "squeeze" discovery was only a link in the chain of development—but one without which today's status could not have been reached.

A persistent chemist who had a product and created the package for it is primarily responsible for putting plastics into the bottle and tube business on a big scale

5

PACKAGING

1 Dressing-table appeal is achieved for Avon Products' new Vita-Moist Cream with this yellow-glass, urn-shaped container topped by a large white molded urea cap. Lettering and design are silk screened in gold. Container, Continental Can's Hazel-Atlas Glass Div., Wheeling, W. Va. Cap, Armstrong Cork, Lancaster, Pa. Silk screening, Cerigraphic, Inc., Hackensack N. J.

2 Compressed air in an aerosol container offers new convenience to motorists. Astoria Mfg. Co.'s new emergency air pump, called Little Giant Spare Air, comes equipped with a nozzle for easy inflation of tires and is expected to find additional use as a vacation tool for inflating rafts, air mattresses, footballs, etc. The 12-oz. seamless can is lithographed in four colors. "Spra-Tainer" can, Crown Cork & Seal, Philadelphia.

3 Corrugated shipping containers that convert into a toy western-style "stage depot and hotel" are designed to create customer good will for North American Van Lines. They brighten up the company's moving containers, implement advertising and promotional programs, give salesmen a new sales theme. Designs are printed in yellow and brown on all four sides of the natural kraft, together with setting-up instructions, company slogan and trademark. Container, Mead Corp., Dayton.

4 Penn Maid Dairy reports a sales increase of 700% since packaging its sour cream in varied-color, half-pint polystyrene containers four months ago. Reusable as kitchen or bathroom tumblers, the containers are offered in pink, blue, turquoise, yellow, ivory and maroon colors. Product protection is said to equal that of glass, polyethylene or paper. Containers molded by Plastomatic Corp., Malvern, Pa., using Dow high-impact Styron.

5 Die-cut windows are arranged to simulate the eyes of a grinning youngster, looking cross-eyed through a pair of black-rimmed spectacles on front and back panels of Crystal Sugar Specs—a new colored-sugar product for kids to use on cereals and for decorating desserts. Product is visible through 0.0015-acetate windows. Carton, National Paper Box, Chicago. Contract packaging, Acepak, Inc., Chicago.

6 A new merchandising idea by Armour & Co. is the marketing of Armour Star frozen turkey roasts—quarter sections of turkeys averaging about 5 lbs. each. The family-sized roasts, expected to promote turkey for regular year-round meals without leftovers, are packaged in shrink-type film bags, with inner waxed U-boards printed with cooking instructions. "Cryovac" bags, W. R. Grace's Cryovac Co., Cambridge, Mass.

7 Small-boat owners are made aware of the need for adequate navigation instruments by Wilfrid O. White & Sons, which is getting its line of Marine compasses up front on the counter with a die-cut paperboard display that carries out a "salty" theme, complete with three-dimensional replica of a channel marker. Cartons for the individual instruments have been redesigned, with printing in yellow and blue to complement the display colors. Cartons and display, Cambridge Paper Box, Cambridge, Mass.

8 A new shape for baby-food jars is pioneered by Swift & Co. for its High Meat Dinners. The 4¾-oz. capacity is the same as that of the standard baby-food jar, but the new one is shorter and wider in diameter. Consumer research reportedly shows that mothers preferred the new jar two to one over the standard jar because of its ease to use for spoon feeding, to store in the refrigerator and to heat. "Low-Boy" jar and "Anchorvac" caps, Anchor Hocking Glass, Lancaster, Ohio.

9 Sturdy, low-cost, printed polyethylene bags in 5- and 10-lb. size give added shopper appeal to Alpha Beta Markets' pre-packed potatoes. The design, requiring almost zero register, is in four colors on front and sides. Color bands distinguish two different types of potatoes—maroon for Russet and blue for White Rose. Bags, Continental Can's Flexible Packaging Div., New York.

10 Grocers have a choice of vertical or horizontal facing with this new wrap design for SeaPak shrimp. One side of the six-color, laminated-foil wrap has a horizontal facing; the other, a vertical facing, offering flexibility in utilizing freezer display space to best advantage. It also solves a question on which many grocers disagree: Which package design has the most sales appeal—horizontal or vertical? Wrap, Reynolds Metals, Richmond, Va.

PAGEANT

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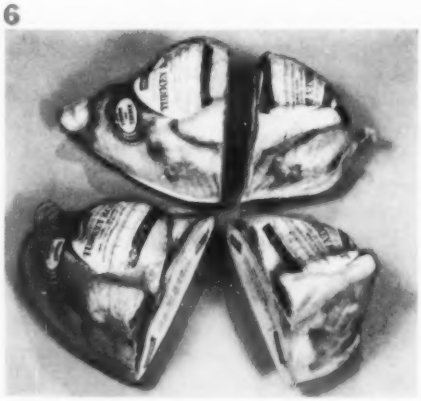

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What can packagers do?
The best hope of clearing materials
for safety within cost and time limits
lies in a massive group effort
by packagers and suppliers
working in close understanding with F&DA

CRISIS: the

The food-packaging field is staggered by the implications of the new Food Additives Amendment to the Food, Drug & Cosmetic Act which became effective March 5. As interpreted by the Food & Drug Administration, which is charged with enforcement, the new law covers all food-packaging materials—*old and new—if there is any reasonable likelihood that a chemical or other ingredient of the material may affect or migrate to the food.*

The F&DA is now empowered to demand proof of the safety of every packaging material used with food—and to have the material barred if not convinced of its safety. This is a radical change. Previously, any material could be used at the packager's discretion and was considered innocent of danger until proved otherwise; now, in effect, all materials are considered dangerous until proved innocent.

In the first article of this series, last month, MODERN PACKAGING *outlined the requirements of the law and the F&DA's interpretations and proposed procedures. Briefly: New packaging materials brought to commercial use since Jan. 1, 1958, are now barred from use, if they contain a migrant, unless they have been cleared by F&DA after testing. After March 5, 1960, a food packager may not safely use any packaging material—new or old—unless it has specific F&DA clearance under the new rules. That deadline may be extended, at F&DA's discretion, for a period of no more than a year.*

If it can be proved that there is no migration of packaging ingredients into the food (and this apparently must be proved for each particular product formulation), F&DA clearance is not necessary. If there is migration, the amount must be measured to the most minute degree. Finally, it must be proved that this amount is harmless and this may involve animal-feeding tests taking two or three years.

The best current opinion as to how the packaging field can cope with these problems is rounded up in the second article, which follows.

In the face of the unprecedented requirements of the new Food Additives Amendment, with a final deadline for F&DA clearance of both new and established food-packaging materials now only 21 months away, packagers and their suppliers are up against three big unsolved questions:

1. Who is going to carry out the complex testing required to satisfy the law?
2. How can it be done, for literally thousands of material-product combinations, within 21 months?
3. How much is it going to cost?

There are conflicting viewpoints, but it seems obvious that the tremendous task can only be accomplished if packagers and their packaging suppliers cooperate to the utmost and share the burden of clearing up the tremendous load of test work within the next few months. However, the greatest burden, undoubtedly, will fall on the suppliers.

Any over-all estimate of costs is impossible—at least now—but some figures are available on various types of individual tests that each manufacturer can undertake to appraise his own situation.

At the moment, the only action most packagers are taking—if any—is to demand blanket guarantees from film extruders and from converters of all packaging materials that their materials will meet the new F&DA safety requirements. This is the old "save us harmless" clause. Converters, in turn, are presenting the same demands to basic suppliers.

Many companies in the food field are waiting for F&DA to clarify its position. Some cling to the hope that the "obvious impossibility" of completing tests on all packaging materials within the limited time allowed by law will jolt Congress into lengthening the test period. Others feel that the F&DA will temper its authority with discretion ard dare not risk disrupting the whole food-distribution system by banning all untested packaging materials at a certain date. But it is quite clear that F&DA does not intend to back down on the basic law and will not permit the use of "suspicious" packaging materials that remain untested after the March 5, 1961, deadline.

For this reason, the experts conclude that immediate attention should be concentrated on packag-

new food law-2

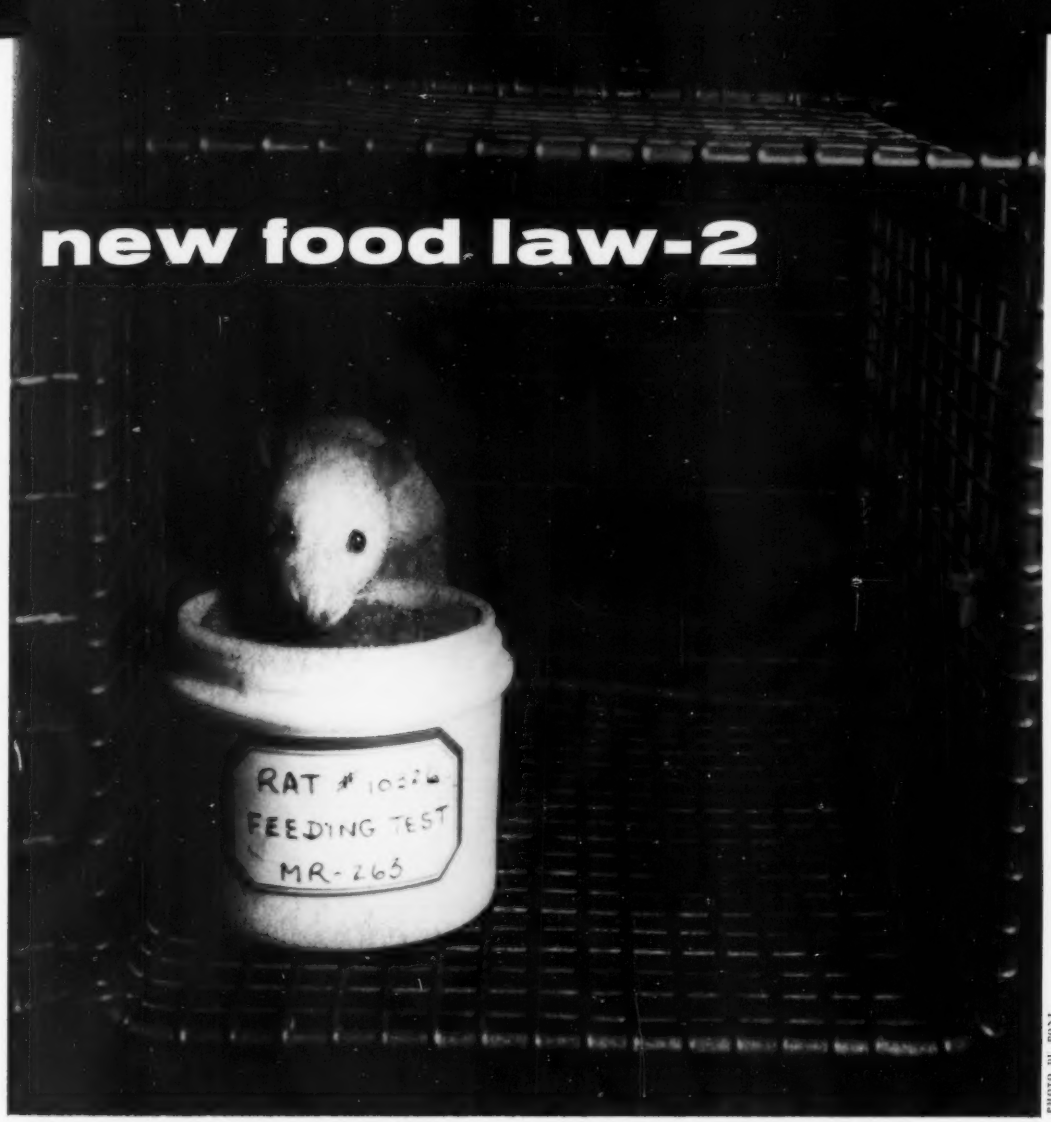


PHOTO BY DUPONT

Ultimate test *for the safety of a food packaging material is an animal-feeding experiment, which takes at least two years to perform. All materials that contain exotic migratory chemicals on which there are no published data will probably have to face this exacting hurdle.*

ing materials and components that contain certain chemical additives, particularly those which F&DA has indicated unofficially will be subjected to close scrutiny. These include plastics, papers, textiles, adhesives, inks and tapes that contact food products.

Guidance

Even though the F&DA warns officially that previous "sanctions" and opinions are generally very restricted in application and will not be published, there is some published information emanating from the F&DA that serves as a good guide, at least, to those chemicals which are least likely to be considered "suspicious." Attention is certain to be focused on plastics containing chemical plasticizers and stabilizers and, in this connection, it should be noted that in 1955 MODERN PACKAGING published an article by Dr. A. J. Lehman, director of F&DA's Pharmacology Div., in which some 60 resins, plasticizers, stabilizers and other common chemical additives used in packaging materials were identified as to their "acceptability" at that time.* That article is the most widely used reference on this subject.

It will help to keep in mind the two rules by which a material is judged:

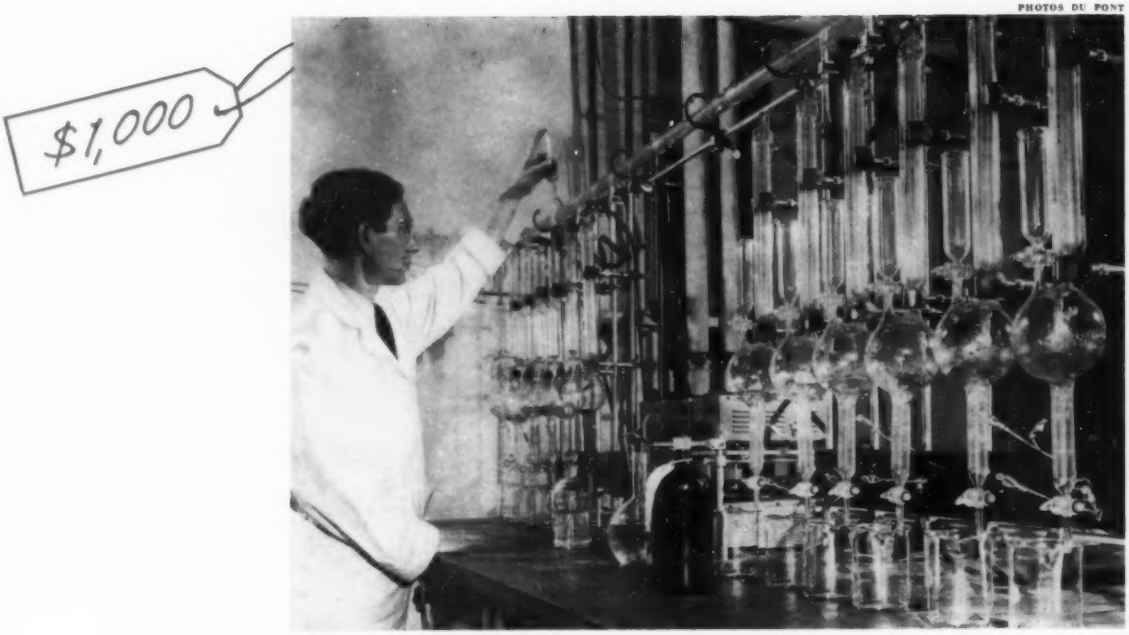
1. *Hazard.* A food wrap could, theoretically, contain a chemical highly toxic in itself—but if it could be proved that none of this chemical could migrate to the food under specific circumstances, the wrap would be deemed non-hazardous and accepted under such circumstances.

2. *Toxicity.* If the chemical is in any degree mi-

*See "F&DA Acceptance Criteria," MODERN PACKAGING, Jan., 1955, p. 115.

Checks for food-packaging safety

PHOTOS DU PONT



Simple chemical tests—*to determine whether chemicals migrate from a packaging material, what these chemicals are and how much gets into a food—are the first steps in the testing chain. If standard analytical techniques have been developed, the tests are relatively inexpensive. F&DA officials predict—and packaging men hope—that the majority of tests for packaging materials will fall into this class. If not, then new testing techniques must be developed and the price increases.*

gratory, then it is necessary to measure the exact amount transmitted and to establish that it is, in this amount, non-toxic.

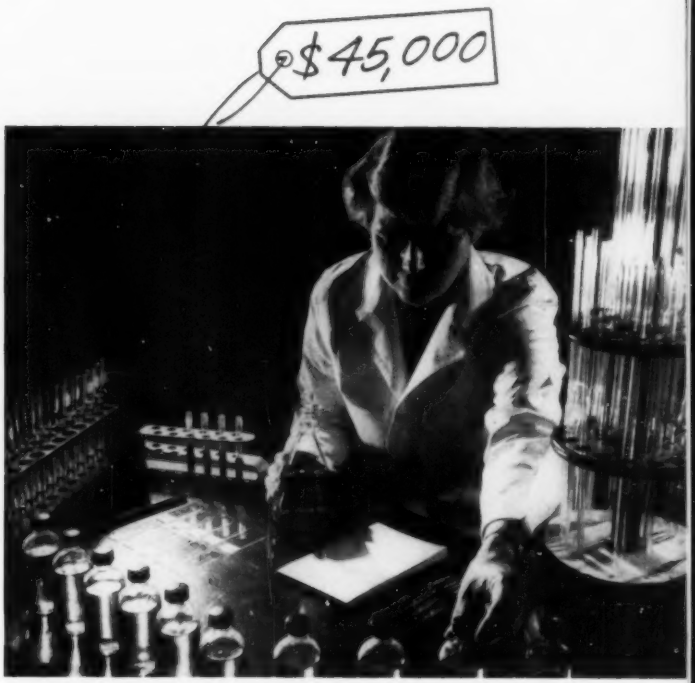
F&DA officials say that packaging materials have never caused serious problems because, in their own interests, packagers would not use materials that would adversely affect their products or their customers. Thus, why expect that packaging materials will be subjected to any unusual difficulties just because there is a law covering additives?

The only previous experience that packagers have had with compulsory clearance of packaging materials is under regulations of the Meat Inspection Div. of the U. S. Dept. of Agriculture, which, since 1908, has required safety certification of packaging materials that contact meat products prior to marketing. Clearance procedures of that agency are very similar to those proposed by F&DA for the new Additives Law, though the volume of work is far less because of the limited number of materials used on meats. In fact, most clearance work has been done since the late 1940s and was sparked by the advent of new plastic films, can coatings, plasticizers and stabilizers. Standard paper packaging materials have been accepted by that agency for many years on the basis of long use. MID officials estimate that over the last 12 years they have cleared about 30 resins, 20 plasticizers and 12 to 15 stabilizers.

However, in the case of can enamels—use of which soared from only 30% of all cans before World War II to 70% now—the untested compounds were permitted to be used before tests were made and MID allowed manufacturers all necessary time to run extraction and animal-feeding tests. Furthermore, a published list of approved packaging materials and chemical additives for meats is available from MID. Since data that satisfied MID are reported to be acceptable to F&DA, this may help some suppliers or meat packagers who are using MID-approved packaging materials on other products.

become more costly, step by step

Complex analyses *that require development of special chemical tests or involve such expensive apparatus as this quartz spectrograph may also be necessary to pin down the elusive migratory chemicals that exist in a packaging material in only a few parts per million. Precise identification is a must under this law.*



Animal-feeding studies *provide final toxicological proof that packaging materials or extractable chemicals will not harm a living organism in amounts normally used in packaging. Here, a technician performs cell tests on blood samples drawn from experimental animals. Standard cost of these studies may soar to several hundred thousands of dollars if exact level of toxicity must be pinpointed.*

However, industry experts claim that unless there is some quick way of establishing the majority of common materials in the "non-hazardous" class, the problem of clearance becomes truly staggering for the general food field.

Materials suppliers point out that even the largest companies simply do not have either the facilities or the time to run a complete series of toxicity tests on all existing materials within the time limit.

Resin suppliers add that it is technically impossible for them, under the regulation as interpreted by F&DA, to give blanket clearance on films and coatings made by various companies from the same resin because the manufacturing techniques and additives used vary widely among extruders.

Thus, packagers and converters will inevitably have to perform some of their own test work, particularly on chemical characteristics peculiar to highly specialized products as well as to packaging materials which might be in limited use.

In addition to MODERN PACKAGING's articles, there are several sources of published information that packagers can turn to for help in understanding the regulations and the extraction and animal-feeding tests that may be necessary for packaging materials containing migrant chemicals.

Definitions and Procedural and Interpretive Regulations by which the new law will be enforced are printed in the *Federal Register*, March 28, 1959, pages 2434 to 2440. A copy of the Food Additives Amendment can also be obtained for 15 cents from the Superintendent of Documents, Washington 25, D.C., which also handles the *Federal Register*.

The National Academy of Sciences-National Research Council has just published a study of the chemical components used in food packaging materials and methods for their extractability in a booklet called *Food-Packaging Materials; Their Composition and Uses*.

Leading packaging suppliers are rapidly assem-

bling manuals covering procedures for their materials. Continental Can Co., for one, has a manual —*Methods for the Determination of Extractables from Can Enamels and Other Packaging Materials* —that covers both details and broad principles of extraction tests and advises on what kinds of data are necessary to satisfy F&DA requirements.

Cost

No one can guess what the cost of this mammoth testing program will eventually total. But responsible officials of various packaging associations and conservative executives of key suppliers have applied such terms as "fantastic" and "astronomical" to their private estimates. One large and diversified supplier has already spent a half-million dollars on "informal" tests and expects to spend $100,000 more each year in the foreseeable future for clearances.

Commercial testing laboratories which specialize in this kind of research work are without doubt going to do a land-office business.

Here are some basic figures—estimated by commercial testing laboratories—that will give each packager or supplier a basis for gauging his individual financial burden:

In chemical examinations, the big factor is availability of standard test procedures. If such tests are known, simple separation and measurement of a migrant chemical may cost less than $1,000. This figure soars to $10,000 or more if special tests must be developed or if radioisotope tracers, spectrophotometers or chromatographic devices must be employed to detect minute quantities of a chemical.

Toxicology laboratories *are costly—and are feasible only for the largest suppliers or packagers having a constant stream of new materials. A modest facility, capable of running three or four feeding tests at a time, costs $1,000,000 to build and equip, another half-million dollars per year to run.*

PHOTO FOOD & DRUG RESEARCH LABS

But the biggest worry lies in both the cost and time element of animal-feeding experiments, which may be required if there is no body of safety data on record for a migrant compound. Experienced industry sources estimate that a minimum feeding test, performed by a commercial laboratory, will range from $35,000 to $45,000. And if F&DA requires additional tests to determine the exact level of toxicity of a chemical, cost can jump as high as $200,000.

Those who might prefer to run their own animal tests will find it an expensive proposition and probably not worth the investment unless their company is very big and has a steady stream of new packaging materials. A modest package-testing facility, capable of handling three or four two-year feeding experiments at a time, requires an astonishing amount of floor space—roughly 25,000 to 30,000 sq. ft.—and costs close to $1,000,000 to build and equip. Each year, another half-million dollars must be spent on this installation to cover overhead, labor and replacement of animals.

There is no question that these expenditures for chemical and feeding tests could quickly ruin a small, diverse manufacturer. F&DA offers little encouragement. Deputy Commissioner, John L. Harvey says, "While we feel sorry for little manufacturers and have no ready answer to their problems, they must find the money somewhere, or rely on their basic suppliers."

What to do?

The big question is: How many clearances will be carried to the extreme of lengthy animal tests? F&DA doesn't know and only time will tell.

So—what can food packagers and suppliers of all sizes do to help themselves?

Written guarantees from suppliers are the first line of defense, though they do not solve the basic problem. It is legally possible under the Food, Drug & Cosmetic Act for a packager to transfer "criminal responsibility" (a harsh term, but true) to his supplier—or for a converter to shift his responsibility to a basic supplier. There is even a sample guarantee form printed in official copies of the Act for the guidance of drug companies that is equally useful for food packagers. But court cases involving drugs have shown that this form of legal buck-passing does not necessarily protect packagers from legal penalties, which can range from seizure of the packaged products to fines and even jail sentences.

A packaging supplier can be held responsible only for the actual product he produces. If the packager adds another element—such as an adhesive or tape or ink that contacts the product—or abuses the package in some way, or uses it for a product other than one for which [*Continued on page 176*]

Jet-age shipper

Protecting delicate plane-engine turbine vanes, General Electric's vacuum-formed tray of high-density polyethylene serves Air Force at savings of 30% in cost, 20% in cubage

Cradled in grooves *in a tray thermoformed from high-density polyethylene, delicate jet engine turbine vanes are held in place by a heat-sealed lid made from a high-barrier lamination of polyethylene, foil, paper and 60-point paperboard.*

High resistance to corrosion, superior shipping strength and easy storage are prime features of a new thermoformed high-density polyethylene tray with a four-ply laminated heat-sealed cover that is now in use for packaging jet engine turbine vanes at General Electric Co.'s Flight Propulsion Div. in Cincinnati. Compared with a former pocketed paper strip, which was rolled and sealed in a No. 10 can, this unique application of polyethylene is said to cut 20% in cube and 30% in cost of packing these expensive precision parts.

The success of the new Air Force-approved container points the way to use of similar polyethylene trays for packaging a wide range of other industrial items as well as fragile consumer products.

Vacuum formed from 20-mil sheet, with no section less than 6 mils thick, the tray has two parallel pockets that contain 12 and 13 turbine vanes each. Individual molded grooves prevent the vanes from shifting or touching each other.

The cover is made from 60-point paperboard, laminated to a barrier combination of paper, foil and polyethylene. The polyethylene, on the inside of the cover for heat sealing, was selected for its compatibility with the high-density tray material.

At General Electric, the package is hand loaded, covered with the lid and placed in a semi-automatic machine that seals one package at a time. This foot-pedal-operated unit contains a sheet of Teflon-coated glass cloth with a rectangular opening to hold the plastic tray. In closed position, the sealing dies rise under the package and apply heat upward through the glass cloth to seal the lid to the flanges on the tray. This technique achieves a 5-sec. heat-sealing cycle, which is a considerably shorter time than if heat were conventionally applied downward through the heavy paperboard lid.

The unique container has been thoroughly tested to withstand rough handling. A film of preservative oil covers the vanes. Permeability measurements disclose that this package has a WVTR of 0.01 gm. per 24 hrs. per 100 sq. in.—which is only one-fifth of the standard military tolerance (0.05 gm.)

Semi-automatic packager *holds tray packs in a rectangular hole in a sheet of plastic-coated glass cloth. Paperboard cover is added and machine is closed. Heat is applied upward through the cloth.*

SUPPLIES AND SERVICES: Trays vacuum formed by Paper Package Co., 1036 N. Capitol Ave., Indianapolis, using "Grex" polyethylene by W. R. Grace & Co., Clifton, N. J. Lids fabricated by Loroco Industries, 100 E. Benson St., Cincinnati. "Sentinel" heat sealer by Packaging Industries, Montclair, N. J.

Break-apart flashbulb carton

Packaging engineer Stuart Sanford of Westinghouse Electric Corp.'s Lamp Div. has developed a break-apart carton for photoflash bulbs that not only cuts the cost of packaging by 18.4%, but also strengthens the products' sales appeal in a highly competitive market. The new package is a duplex folding carton made of 0.12-in. bleached-sulphate stock. Divided vertically in half by a perforation line, the carton contains 12 loose-loaded flash bulbs, six in each compartment. It can be sold as a unit or broken along the perforations into two pocket-size packages.

The fact that the lacquer coating on the flashbulbs is adequate protection against product breakage was of key importance in developing the compact, easy-to-fill new carton, says Mr. Sanford. In the former, bulkier package—a corrugated paper sleeve over a rectangular paperboard insert with die-cut holes—bulbs were kept separate from each other. Manual loading thus was a time-consuming operation. The finer printability of bleached sulphate also gives Westinghouse's new carton greater shelf appeal than the corrugated sleeve. *Carton by Bruce Carton Co., Memphis.*

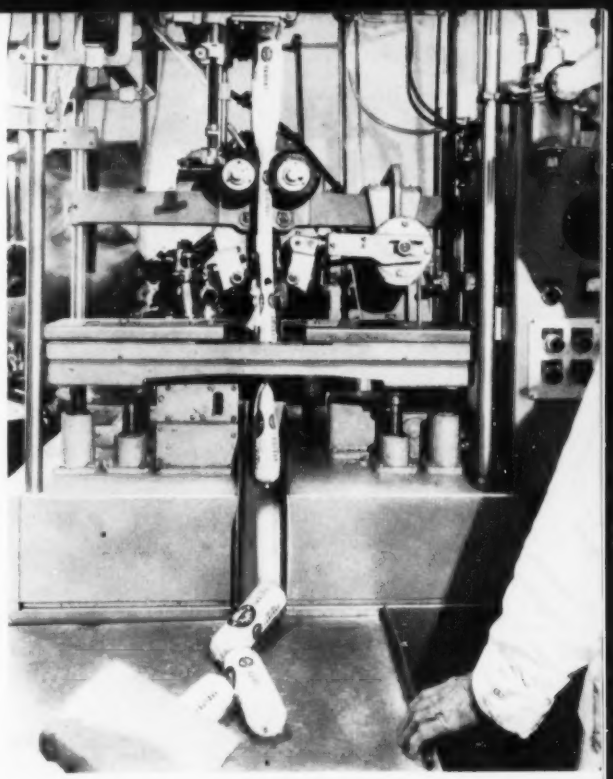
COST

How colorful corrugated cuts display costs 75%

In the trend to better design and finer, more colorful printing on corrugated board, there is an opportunity for many packagers to cut the costs of point-of-purchase display without sacrificing sales appeal. An illustration is the whopping 75% cost reduction reported by Marglo, Inc., New Britain, Conn., since going from metal display stands to corrugated counter units for merchandising its rolls of Trimbrite metalized-polyester household tapes.

As an additional economy and for retailer convenience, the display box for 12 giant-size rolls of tape is an integral part of the shipping container. A corrugated carton without bottom flaps is slipped over the pre-packed display and tape sealed to its bottom panel. In the store, the dealer sets up the display simply by cutting the tape, removing the outer carton and folding back the riser. The corrugated board used to make the new Marglo display has a white-coated kraft outer liner, which offers an excellent printing surface for the reproduction of a two-color (green and yellow) design that complements the tape colors. *Display and shipping carton by Grand-City Container Corp., North Bergen, N.J.*

A 35% saving, automatically



An over-all packaging-cost reduction of 35% is reported by Sunnyland Packing Co., Thomasville, Ga., since its switch to automatic packaging of sausage in strong polyethylene casings. In the company's former operation, prefabricated cellophane casings were fitted over the stuffing horn of a filling machine by hand and also were closed by hand. Its new automatic casing former-filler-sealer, says the packager, permits higher production speeds and reduces the number of packaging-line personnel from five to two.

In machine operation, the web of pre-printed, 2-mil polyethylene is heat sealed to form an elongated sleeve (closed at the bottom by an aluminum clip) which slips over the filling tube. Compressed air drives the sausage mixture from a 500-lb.-capacity storage tank into the sleeve, filling it completely. At the discharge end of the machine, automatically applied aluminum clips separate the filled sleeves into 1-lb. packages, which are severed from each other by a cutter bar, then packed a dozen to the carton. *Printed film by Milprint, Milwaukee 1, using Bakelie polyethylene. Forming-filling-sealing machine by Kartridge-Pak Machine Co., Chicago 10.*

CUTTERS

Economy in bulkless bags

Savings of up to 50% in the costs of shipping containers, labor and freight have been achieved by Stewart-Warner Corp., Chicago, since adopting a lightweight, single-wall corrugated bag for the unit packaging of speedometer shaft assemblies. The exposed fluting in the bag's interior provides a shock-absorbing cushion for the product. This company's solution to its cost problem can be adapted by other packagers of fragile or precision-made items that require extra protection during shipping and handling.

In its former packaging operation, Stewart-Warner used cushioned bags and chipboard cartons. Although costs were reasonable, these bulky packages were cube robbers when loaded in the master shipping container. And the chipboard cartons had to be set up, at a considerable cost in time. The company reports that the lighter-weight, prefabricated bags now used can be filled rapidly. Because of their lack of bulk, 50% more units can be packed per shipping carton than was possible with cushioned bags; compared with chipboard cartons, the increase is 100%. *Corrugated "Corro-Bags" by Sherman Paper Products, Newton, Mass.*

Ease of preparation *and smaller portions (half of usual two-serving package) are Birds Eye's strong points vs. hot-processed strained foods. You just add hot water, stir and serve; there's no cooking. Each foil envelope contains one individual serving. There's no waste or leftovers. Each package contains four envelopes; may be stored in refrigerator for weeks, in freezer for months at zero temperature.*

GF's bid: frozen instant

Eyes of the nation's $275-million baby-food industry are focused on the little northern New York city of Watertown (pop. 34,350). There, with no outside announcement whatever, General Foods has placed on sale its long-discussed new Birds Eye Frozen Instant Baby Foods—each in a foil envelope holding just one four-tablespoon serving.

The pre-cooked foods are in the form of dehydrated, frozen granules, which flow freely from the envelope into a dish where, with the addition of a quarter-cup of hot water, they reconstitute within 30 seconds into hot, ready-to-serve foods with, it is claimed, the retention of all of the vitamin and taste values of fresh foods.

Although General Foods is mum about the event, all Watertown is talking. It is apparently not a market test, but a full-scale market introduction, so far as this one city is concerned, with the product in the frozen-food cases of every chain and independent food store in the city, accompanied by effective display material. In a full-page ad in the *Watertown Daily Times*, GF heralded the introduction as "the greatest advance in baby foods in 30 years."

While that statement remains to be proved, there is no question but what this move by the nation's largest food manufacturer—its first bid for the baby-food market—can have great impact on both the baby-food and the frozen-food industries. If successful, it can force other baby-food makers into a new form of processing, packaging and distribution, and it can add millions of dollars in sales (along with an added space problem) to the already-

booming frozen-foods list now carried by retailers.

Packages purchased in Watertown indicate that the new line consists of 17 items—five fruits, six vegetables, three soups, two "high-meat" dinners and a pudding. For each variety, four single-service envelopes are packaged in a folding carton about the size of a Jell-O box. The space-saving envelopes may be stored in a refrigerator up to a month and in a freezer almost indefinitely, according to copy on the packages. A week's supply reportedly takes up little more space than a quart of milk.

The development, pointed out as the first major change in the form of baby-food packaging since strained foods were introduced in jars and cans, is made possible, the ads say, "by a unique new dry-freezing process that produces tiny food crystals that give your baby more of the natural food values, fresh flavor and color of fresh foods." The advantage of "a fresh serving for each feeding" is stressed.

There's "no more long heating in jars or cans," says the ad, "no more hot jars to handle—or to drop and break. You just put Birds Eye's tiny frozen food crystals directly into baby's dish, add water, stir and serve. There's no thawing . . . no further cooking . . . you get strained foods in 30 seconds."

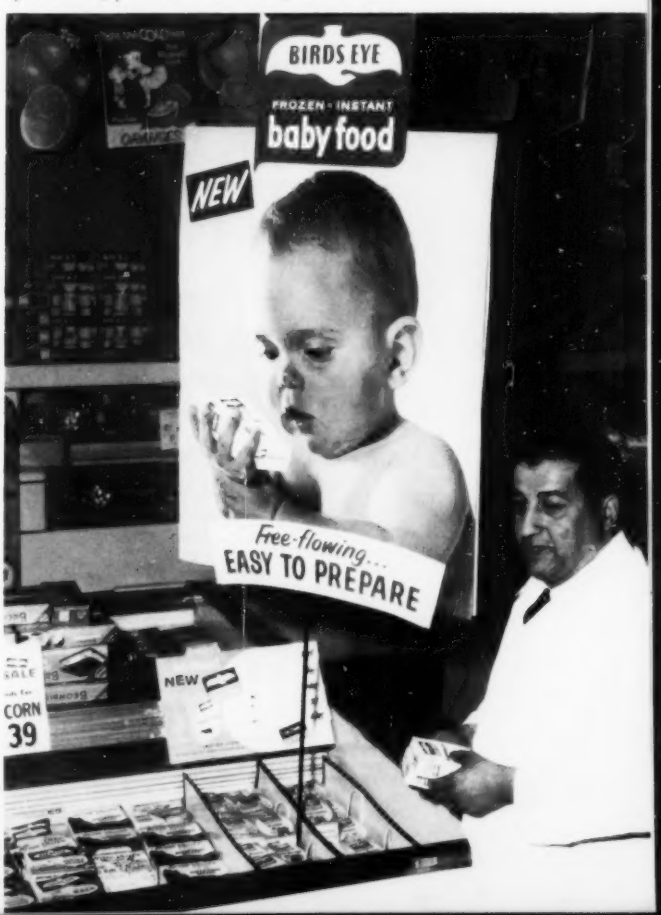
General Foods' copy states that the contents of each envelope are equivalent to half the contents of a standard jar or can of baby food. Thus, the packages are expected to have special appeal for those mothers who usually use only half a jar or can at a time (reportedly the standard feeding for babies on strained foods) and who dislike storing leftovers.

"No messy, half-used jars and cans to store and reheat!" says the General Foods ad, ". . . never any waste, never any spoiled leftovers to throw away."

Packing the envelopes four to a carton not only assures a multiple purchase, but facilitates stacking and displays in the frozen-food case. In Watertown, the cartons of fruits and vegetables were selling at two for 45 cents (making the consumer's cost about 5.6 cents per serving) and the meat product at one carton for 37 cents (or a cost of slightly more than 9 cents per serving).

Apparently General Foods is being careful not to ask for too much space in already-crowded frozen-food cases. Watertown retailers reported that Birds Eye representatives wanted no more than 15 in. of linear space. This permitted display of four packages abreast and about six from front to back of the average case. This display is topped with a pole poster featuring a large color illustration of an appealing baby holding one of the packages and the Birds Eye trademark with the words "New Frozen-Instant

Only 15 in. *in frozen-food cases was stipulated by Birds Eye for all displays in Watertown. Shown here is a typical display of new baby foods in Sowan's Supermarket.*



baby foods

Birds Eye's long-rumored move into $275-million baby-food market is made quietly in Watertown, N. Y.; single-service foil envelopes hold dry crystals that reconstitute in seconds in hot water

Baby Food . . . free flowing . . . easy to prepare." A smaller poster for the back of the case carries an illustration of the package, the list of products in the line, prices and copy stressing that each box contains four servings.

Surface design of the packages, in additions to giving quick trademark identity to the products as belonging to the Birds Eye family, are designed with amusing drawings of babies reproduced in color—a different pose to represent each of the four product groups and pictured in each case with an illustration of the product contained, such as a pear, a peach or an apple on the fruit packages; or squash, potato or spinach on the vegetable packages, or with a line drawing of a steer on the strained-beef-with-vegetable package. Background colors of the packages are also keyed to contents for easy recognition—pink for the fruits, green for the vegetables, yellow for pudding, brown for meat products.

The carton obviously is of a special protective construction to withstand the moisture conditions of frozen-food processing. A convenient detail is a die-cut pull tab at the glue seam of the carton about a half inch from the top, serving as the starter for an around-the-carton tear strip which neatly removes the carton top.

Consumer reaction is indicated by comments of George Sowan, vice president and manager of Charles J. Sowan's Supermarket and Bakery, one of Watertown's independently owned supermarkets:

"I can tell you this—it's definitely selling and it has aroused a lot of interest. Women seem to think the new process is a good idea. Those who have tried it have told me they like the genuinely fresh taste, the convenience of the individual-serving envelopes and the easy preparation. Some of my customers say that they prefer the new process to conventional baby-food preparations."

Opinion in the trade is that frozen instant baby foods will supplement, rather than replace, the well-established strained foods in jars and cans. Nevertheless, other major producers will be ready to jump in with such a supplemental baby-food line if the Birds Eye venture proves successful.

Color-keyed cartons *distinguish the four product groups: pink background for fruits; green for vegetables; yellow for pudding; light brown for high-meat dinners. Illustrative treatment identifies each individual product. The initial line consists of 17 items.*

Convenient opening *is provided by die-cut pull tab for tear strip that tears about a half inch from the top around each carton.*

Onions in thermoforms

Syracuse produce packer ups sales 50% and increases his profits 15% by adopting an eye-appealing transparent acetate blister pack

Attractive appearance *of the packaging makes onions an impulse item. The packages are being used either for two big Spanish onions or three red onions.*

What packaging can do to upgrade such an ordinary produce item as an onion is illustrated by the revolutionary new compartmented thermoformed cellulose acetate packages adopted by Collamer Produce Co., East Syracuse, N. Y., for big premium Spanish and red onions.

The same basic package form is being suggested as a possibility to reduce damage from handling and to bring a better price for other premium fruits and vegetables—lemons, peaches, avocados, oranges, apples, pomegranates and tomatoes.

Collamer reports that it has already sold more than half a million of the new onion packages in Grand Union, A & P and other chain supermarkets in the Syracuse area, resulting in a 50% increase in sales poundwise, a 33⅓% increase in dollar-volume sales and a 15% increase in profits. And it is test marketing three tomatoes in a similar package with reportedly exceptional results. Added cost of the packaging—perhaps two or three times that of polyethylene bags—apparently is warranted because of stepped-up appeal and reduction in damage from handling.

The single-piece, fold-over packages are thermformed of 0.010-in. cellulose acetate in two styles: with four cavities to hold two large Spanish onions, or with six cavities to hold three red onions.

The thermoformed blanks are supplied to the produce packer nested. To complete the package it is necessary only to insert the onions in one half of the formed piece, then fold over the other half and close the package by stapling. A series of grooves placed at different points in the circumference of the molded compartments facilitates handling the nested containers. Without these grooves, the nested containers tend to stick together.

The new packaging idea was adopted first for onions because it was the belief of John De Augustine, president of Collamer Produce Co., which holds the patent on the package, that shoppers could be induced to buy onions more frequently if they were packaged more attractively and in quantities small enough for the average householder.

The thermoformed package assures premium onions, uniformly sized, enclosed in a completely transparent package, convenient for home refrigerator storage when only part of an onion is used.

Supermarkets like the packages because they permit neater displays, are easy to stack in rows, can be price marked with a crayon and reduce waste due to handling by the shopper.

SUPPLIES AND SERVICES: Thermoformed packages designed and produced by Syracuse Plastic Molders, Syracuse 1, N. Y., using Celanese cellulose acetate.

Nested containers *are easy to handle. They are simply filled, folded over and stapled. Stapling makes for easy opening.*

Winning set-up boxes

94 awards among 2,400 entries in ninth annual NPBMA competition more than ever reveal advances in mechanical techniques to meet today's demands for economical, mass-produced rigid boxes

Progress in economical, high-speed box-making techniques that are helping the traditional rigid paper box to compete more favorably today with newer packaging forms is dramatically demonstrated by the 2,400 entries in the Ninth Annual Set-Up Paper Box Competition of the National Paper Box Mfrs. Assn.

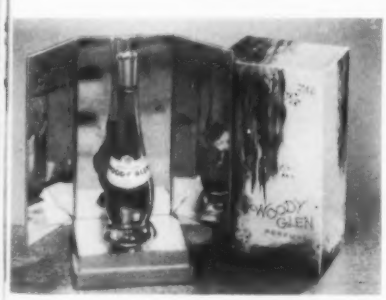
This year's 94 winning packages focus attention on the precision-engineered constructions and graphic treatments of today's mass-produced boxes to upgrade the product for greater merchandising appeal and to provide improved protection. More than ever, the winners are representative of the quality craftsmanship in box making available across the entire country today.

While "ability to sell the goods" was the primary consideration in judging the competition entries, the

FIRST in 23 end-use categories

Drugs, pharmaceuticals. *To Paper Package Co. for Kerr Mfg. Co. Cavaseal combination package. Box-in-box package expresses quality, offers dust-free display. Acetate lid fits over the extension-edge base with deep-well platform that holds bottles securely.*

Drug mailers. *To W. C. Ritchie Div., Stone Container Corp., for G. D. Searle & Co. mailer that focuses doctor's attention on product and its application through two circular windows. Drawing of a human brain is printed on top window. Bottles rest in polystyrene foam platform.*

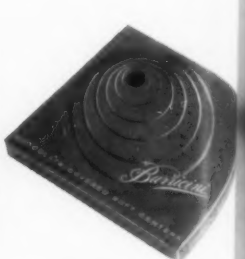


Cosmetics (rectangular boxes). *To Karl Voss Corp., Div. of Shoup-Owens, Inc., for Park & Tilford's Woody Glen perfume box (also second award for display boxes). Closed box portrays a misty sylvan scene. When open, bottle is reflected in mirror-like, three-panel background of copper-toned metalized acetate. Designer, Jack Mohr.*

Cosmetics (round and oval boxes). *To F. N. Burt Co. for Simonetta, Inc., Incanto perfume box in form of Roman column. Heavily embossed paper simulates fluted column not only in appearance, but to touch. Designer, Rudy Urias.*

Personal accesso *To Dennison Mfg. Co. for Jacques Kreisler Mfg. Corp. Colibri cigarette-lighter box. Unusual slant-sided b is produced by using a spring hinge to join tw opposed bevelled tray*

Soap, men's toiletries. *To Newark Paper Box Co. for Barber Shop Quartette box made for Seaforth Div., Prince Matchabelli, Inc. Cover supports and bottle separators are die cut out of back panel to save use of acetate.*



Confectionery. *To Shoup-Owens, Inc., for Barricini chocolates box. Deeply embossed loose wrap is applied by modern mechanical box-making techniques.*

selections clearly point up the special characteristics that influenced the decisions:

1. Outstanding functional aspects,
2. Distinctive display constructions,
3. Combination packaging of related items,
4. Automatically applied loose wraps,
5. Effective new uses of plastics with set-up box constructions,
6. Outstanding decorative effects,
7. Economies effected through redesign,
8. Appropriateness for promotion of the product.

Prize winners were announced and all entries were displayed at the NPBMA annual meeting and "Boxarama" exhibit at the Sheraton Hotel, Philadelphia, May 20-23.

Judges were: Albert S. Daniel, past president of NPBMA and W. C. Ritchie & Co., now executive director, South Chicago Community Hospital, Chicago; John H. Ewing, vice president, Abercrombie & Fitch Co., New York; Philip Libson, director of package development, Max Factor & Co., Hollywood, Calif.; Robert L. Monahon, manager, corporate design department, International Business Machines Corp., New York; Frank A. Muller, merchandising manager, Bristol-Myers Products Div., New York; Maxwell B. Rogers, director of design, Avon Products, Inc., New York; Lawrence H. Zahn, director of methods and packaging development division, Ciba Pharmaceutical Products, Inc., Summit, N. J.

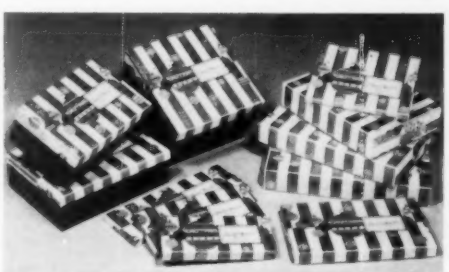
General superiority according to end use

In addition to the 31 first-award winners which are described with the accompanying illustrations, there were 28 second awards and 35 honorable men-

(Continued on following page)

Foods, beverages. *To Grigsby Bros. Paper Box Mfrs. for Sparks' Barbecue Kit sauces and seasonings boxes. Their sturdy construction protects glass containers in shipment while their attractive appearance is suitable for gift use.*

Women's wearing apparel. *To Old Dominion Box Co. for dual merchandiser holding women's and men's Guys and Dolls pajamas by Harwood Mfg. Hinged construction, acetate windows provide display of pajamas in each half of box.*

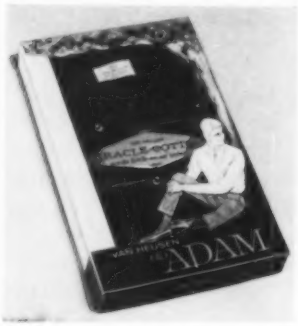


Holiday boxes. *To Wayne Paper Box & Printing Corp. for Edward C. Minas Co. retail-store Christmas gift boxes. A fresh design approach is achieved with cover paper printed with gold stripes that highlight traditional red and green.*

Textiles. *To Old Dominion Box Co. for Fairfax Mills Martex towel gift set. Box is covered with gold-colored foil, while lid is beige flocked. Acetate insert and white ribbon complete the protective and decorative aspect of box.*

Hardware, tools. *To Northwest Paper Box Co. for Barton Wood Products Bee Line furniture-legs box. Product is protected from marring and scratching, yet visible through window. Box may be hung on pegboard, used as standing counter display or stacked. Design, William Wuster & Associates.*

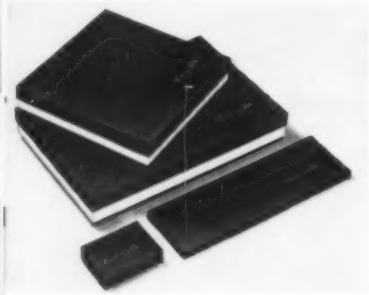
Photographic products. *To Grigsby Bros. Paper Box Mfrs. for Sawyer-Pak No. 127 camera set. Complete kit comes in one compact box, with accessories held firmly in place by die-cut insert in base. Its distinctive green and yellow colors make the box a stand-out in display.*



Men's wearing apparel. *To Pottsville Box Corp. for Phillips-Van Heusen Corp. Adam sportshirt box. Sales success is credited to attractive artwork and transparent window, which enhance counter appeal. Design, K. G. A. Studios.*

Toys, games. *To Friend Box Co. for Polly Sharrock's doll chest. Box simulates an antique trunk, complete with brass fittings, providing appropriate setting for 19th-century-style doll. Lift-out tray reveals storage area for doll clothes. Design, Paul Cadorette.*

Sporting goods. *To Dennison Mfg. Co. for gift packages of U. S. Rubber golf balls in ½- and 1-doz. units. Trademark on inside cover is displayed when box is open. Purposely non-commercial look of metal-hinged box is designed for re-use.*



Retail store boxes. *To Pacific Paper Box Co. for a line of gift boxes for Chuck Walters, Palm Springs, Calif. Color theme carries out that of store's decor. Base wraps are burnt yellow and white stripes. Covers are loose wrapped with high-gloss paper, embossed with store identity.*

Footwear. *To Frank C. Meyer Co. for Edison Bros. Chandler's shoe box. Two-toned oval box is a departure from conventional shape, designed for high-fashion shoes. Carry cord encourages take-with purchases.*

tions in the competition categories, as follows:

Cosmetics (rectangular boxes)—*Second award:* Karl Voss Corp., Div., of Shoup-Owens, Inc., for "Tailspin" perfume box made for General Beauty Products; designer, Norman Sinclair. *Honorable mention:* The Chaspec Mfg. Co. for Max Factor "Primitif" box. George H. Snyder, Inc., for Johnson & Johnson "Gift for Baby" box; designer, Frank P. Coons.

Cosmetics (round and oval boxes)—*Second award:* F. N. Burt Co., Inc., for Prince Matchabelli perfume purse companion box; designer, Rudy Urias. *Honorable mention:* F. N. Burt Co., Inc., for Prince Matchabelli Four Scepter cologne set; designer, Rudy Urias.

Confectionery—*Second award:* G. A. Bisler, Inc., for Stephen F. Whitman & Son, Inc., "Pleasure Island" candy box. *Honorable mention:* Atlantic Paper Box Co. for Harvest Hill Candies Valentine box.

Drugs and pharmaceuticals—*Second award:* Congress Paper Box Co. for Rinn X-Ray Products Rinn Byte-Tabbs box. No honorable mentions.

Drug mailers—*Second award:* Newark Paper Box Co. for Ciba Pharmaceutical Products, Inc., drug mailing boxes. *Honorable mention:* Wilson Paper Box Co., Inc., for C. B. Fleet Co., Inc., pediatricians' pharmaceutical mailing box. C. Albert Sauter Co., Inc., for Lederle Laboratories Div., American Cyanamid Co. Achromycin home-supply mailing box; designer, Irv Teicher, Lederle Laboratories; printing design, Comart Associates, Inc.

Electronic equipment—*Second Award:* Samuel Barnett Co. for Westinghouse Electric Corp. "The Chantecler" clock-radio box. *Honorable mention:* W. C. Ritchie Div., Stone Container Corp., for Zenith Radio Corp. Royal 500 transistor radio box.

Foods and beverages—*Second award:* Heminway Corp. for Stitzel-Weller Distillery Very Old Fitzgerald gift boxes. *Honorable mention:* The Chaspec Mfg. Co. for Paul Masson Brandy Co. rare brandy gift box.

Footwear—*Second award:* Frank C. Meyer Co., Inc., for Pollocks Palizzio shoe box. *Honorable mention:* Frank C. Meyer Co., Inc., for Schwartz & Benjamin Customcraft shoe box.

Hardware and tools—*Second award:* The Warner

Jewelry, silverware. *To Earlville Paper Box Co. for The Gentleman's Jigger gift box made for Oneida, Ltd. Angled base converts de luxe box into counter unit. Gold-plated cup rests in white velvet-covered platform. Design, Mrs. L. Waylandsmith.*

Miscellaneous boxes. *To Ellegant Paper Box Mfg. Co. for Superscope duplicating machine box made for Heyer Corp. The heavy but fragile product is in a sturdy set-up box with corrugated interior packing. Cover has space for brand identity and descriptive illustrations.*

Stationery, paper products. *To Friend Box Co. for Plumes d' Humeur stationery set made by Old Essex Papers. The hinged-lid box provides a custom container for stationery and ball-point pens secured inside the lid. Design, Paul Cadorette.*

Promotional boxes. *To Great Lakes Box Co. for promotional box of 24 assorted Durkee items marketed by The Glidden Co., called Cookbook of Spices and Herbs. Decorative insert holds herb packages in four horizontal rows. Insert page simulating a glossary is printed with informative copy on the products.*

Mailing boxes. *To Stecker Paper Box Co. for box produced as a direct-mail piece for Campbell Ewald Co. to promote WJR Detroit radio station. On opening box, recipient finds a presentation highlighted by "loaded" dice glued to base. Lid is cloth hinged, with thumb hole for easy opening.*

Three double winners

Best surface design and execution
First award in office equipment category

To Van Ness Bros. for Encore carbon-paper boxes made for Burroughs Corp., Mittag Div. Cited as outstanding example of clean, concise design carefully handled from printing through box production. Photographic illustration is reproduced by halftone on gold-colored foil. Hinged lid and die-cut flap in base are convenience features for ease in removing paper.

To W. C. Ritchie Div., Stone Container Corp., for Zenith Radio Corp.'s Golden Triangle all-transistor clock-radio box. Cited for outstanding construction and unusual merchandising appeal. Triangular box, engineered to exacting standards, conforms to shape of contents. Instrument is secured by elastic barbs to die-cut base platform; lid inserts give further shipping protection.

Best in superiority of construction
First award in electronic equipment category

To Shaw Paper Box Co. for Space stainless flatware box made for International Silver Co. Cited for outstanding display and merchandise appeal. Box has pin-hinged lid that rotates to become an easel. Major component is die-cut polyurethane insert that holds flatware securely in place. Design, Lou Ferrar.

Best display box
First award in household supply category

Best transparent box

First award *to Fuller Box Co. for Kaywoodie pipe display package. Three transparent acetate boxes for individual pipes are presented in a metal stand. Protection with full visibility is achieved merely by capping ends of the transparent sections with simulated leather-wrapped set-up box lids. Design, Ben H. Kuyler and Leonard Horwitz.*

Bros. Co. for The Remington Arms Co. drill and hedge-trimmer kit; designer, Edward C. Kozlowski, Warner Bros. Co. No honorable mentions.

Household supplies and accessories—No second awards. *Honorable mention:* Shaw Paper Box Co. for International Silver Co. "Insico" stainless-flatware set; designer, Warren Jones. Cherokee Paper Box Co., Inc., for M. J. Soffe Co. stainless-steel carving-knife box.

Holiday boxes—*Second award:* Wayne Paper Box & Printing Corp., for Gassman's Christmas boxes. No honorable mentions.

Jewelry and silverware—*Second award:* Friend Box Co. for Towle Mfg. Co. Sterling bar-set box; designer, Paul Cadorette. *Honorable mention:* F. N. Burt Co., Inc., for Arpeggio Watch Co. watch box; designer, Alice Jones.

Mailing boxes—*Second award:* Pacific Paper Box Co. for Leeds-Wallace gift match mailing box. No honorable mentions.

Office equipment—*Second award:* Pan-O-Ramic Package Co. for The Parker Pen Co. desk-set boxes. No honorable mentions.

Personal accessories—*Second award:* Dennison Mfg. Co. for The Parker Pen Co. "V.I.P." pen and pencil box; designer, Dave Chapman, Inc. *Honorable mention:* C. Albert Sauter Co., Inc., for Supreme Products Corp. hair-cutting kit. F. N. Burt Co., Inc., for Ronson Corp. Lady Ronson electric-shaver box; designers, Mort Fidler, Ronson Corp., and F. N. Burt Co.

Photographic products—No second award. *Honorable mention:* Flower City Specialty Co. for Graflex, Inc., "Kiddie Klassics" 35-mm. slide dispenser box. Newark Paper Box Co. for Weston Instruments Div. of Daystrom, Inc., direct-reading exposure-meter box.

Promotional boxes—*Second award (also second in Superiority of Construction):* Stecker Paper Box Co. for Ross Roy, Inc., Plymouth promotional sales kit. *Honorable mention:* Specialty Paper Box Co. for Max Factor sales kit; designer, Clarence H. Belfry.

Retail boxes—*Second award:* Paragon Box Co. for Rich's, Inc., Steuben glassware boxes; designer, Dudley Pope. *Honorable mention:* Alton Box Board Co., St. Louis Plant, for Stix, Baer & Fuller bridal-gown box. Pollock Paper Corp. for Fishburn Cleaning & Laundry Co. for wedding-gown storage box.

Soap and men's toiletries—*Second award:* Congress Paper Box Co. for [*Continued on page 199*]

Best for special construction

First award *to George H. Snyder, Inc. for counter display box for Bayuk cigars. Unit enables selection of two sizes of Phillies cigars, either single or five-pack. Arrangement is maintained by separate box sections within unit, while a corrugated pad in bottom of box keeps packaged cigars in step positions for easy removal.*

Why large soap and synthetic detergent firm has used Knox bottles for nearly six years

One of the world's largest and most successful soap and synthetic detergent manufacturers* uses Knox Glass bottles on its toilet goods lines.

The company's attitude toward glass containers has been summed up by one spokesman like this:

"Our glass container specifications are generally tighter than most industries, and we insist that they be met. We are constantly keeping quality control checks on our containers—from the time they come into the plant until the time they are taken off the shelf.

"Naturally, we use only those bottles which consistently meet our high demands."

Knox Glass, Inc., has supplied toilet goods bottles to this manufacturer for nearly six years.

Find out more about the glass quality and high standard of service available to you from Knox's eight plants and 35 sales offices.

Contact your nearest Knox representative, or Knox Glass, Inc., Knox, Pennsylvania.

*Name available on request.

the new / **KNOX GLASS**

Packaging Show report

28th AMA National Packaging Exposition draws 27,750 to Chicago; progress all along the line is reflected in bigger, better organized displays

The outstanding impression carried away by most of the 27,750 who attended the American Management Assn.'s National Packaging Exposition in Chicago was that this was a show revealing significant progress along lines already established, with relatively few eye-opening departures.

The show, held April 13-17 in Chicago's International Amphitheatre, was bigger in area and more lavishly presented than any of its 27 predecessors. It covered more than 4½ acres of exhibit space.

The thermoplastics — including polyethylene, polystyrene and polypropylene — were headliners again not only because of new formulations of resins, film and sheet, but more importantly in new techniques for handling and for forming, sealing and opening the finished package. Yet significant advances were shown also for the established materials, containers and machinery.

Materials

In materials, new opening and sealing features were found to have expanded the usefulness of such thermoplastics as polyethylene. And a new series of polyethylene film resins was shown that combines top clarity with high impact strength at thin gauges. The exciting packaging fledgling—polypropylyene film—was successfully put on an automatic machine for the first time in public. Cellophane manufacturers, far from outdone, had hard-hitting displays that pointed up their product's improved functional characteristics—with polymer and other coatings—which helped to sell a new record of more than 400 million pounds of this film last year.

Polyethylene film developments were outstanding. To speed opening of hermetically sealed medium- and high-density polyethylene film packages and wraps, a tear tape was shown, made from polyethylene-coated polyester film, which is pre-heated and laminated in the machine direction to a web of polyethylene film. The tear tape parts the polyethylene by pulling away the surface along the line, making it easy to tear through the film itself. For bagged products that do not require a hermetic package, a new perforating technique forms a handy zip opener in the bottom of the bag, just above the fold. Application of cellophane tear tapes is improved by a new unit that clips the colored strips from roll stock, seals them to a base web and notches and rewinds the film, if desired.

New progress in bioriented polystyrene now enables this film to be effectively heat sealed over trays and is expected to give this sparkling material —which recently dropped in price—a strong edge for packaging of certain fresh fruits and vegetables. The high-clarity wrapper can be made virtually invisible by hot-air shrinkage.

In foil, the emphasis was on utility—demonstrated by several new designs of pouch and tray packages for heat-and-eat foods. While such containers are conventionally closed by crimping and heat-sealing machines, a new and speedy ultrasonic welder was shown, which is already in commercial use by a foil supplier for connecting webs during manufacture. This unit is expected eventually to provide a sure and economical way to close foil packages.

Foil also showed up in many places as a functional and decorative component in laminated packaging materials.

Cellophane producers emphasized the function and beauty of their materials. This was pointed up by one manufacturer's display of a strong new polymer-coated No. 600 cellophane, which reportedly can replace, with a single transparent wall, many multiwall bags now used for such fragile and moisture-sensitive products as candy and potato chips.

Among the interesting applications of other packaging materials was the use of cellulose acetate butyrate in vacuum-formed containers for individual gears and the upgrading in use of polyvinyl chloride from inexpensive thermoformed trays for fresh fruits and vegetables to decorative and functional trays for expensive candies.

A strong increase was evident in the availability of other thermoformed containers, with at least one exhibitor claiming that increased production rates and the lower cost of polystyrene sheet now enable him to compete in price with paperboard packages. Plastic bottles were increasingly plentiful, particularly those made of the new higher-density resins,

with or without coatings; these improved bottles are entering such big markets as detergents. Increased size of polyethylene shipping containers is a definite trend, as proved by the appearance of a 15-gal. cubical container and various plastic carboys.

Two improvements in glass packaging should boost the effectiveness of these reliable containers: (1) Vinyl coatings for glass aerosols can now be bonded firmly to the glass to give a non-peelable outer surface that increases the strength of the package. (2) Sprayed ceramic coatings can now be fired on the surfaces of glass bottles and jars to increase color range and give new decorative effects.

In such container stand-bys as folding cartons, cans, bottles and corrugated containers the progress was evolutionary rather than revolutionary. Increased use of high-gloss board in folding cartons was evident in many exhibits, together with ingenious tricks of construction to give greater user convenience and economy. Can exhibits reflected the increased importance of aluminum. Glass showed further advances in lightweighting, in both one-trip and re-use bottles. Corrugated and solid-fibre containers were represented, industry wide, in an exhibit of the colorful and ingenious award winners in the recent competition of the Fibre Box Assn. (see MODERN PACKAGING, April, 1959, p. 184).

Machines

Prominent among the new machines were two new integrated units, both from abroad, that turn out plastic trays or bottles from roll-stock thermoplastic sheet and also fill and seal these containers.

One of these units—which drew the attention of many food packers—employs vacuum, pressure or plug-assist techniques to form shallow or deep trays in roll-fed plastic sheet. Space is left on the machine for the desired filling head and the packages are automatically closed with a heat-sealed film, then punched from the web.

A second unit—now under study by oil and other liquid packagers—forms round "blister bottles" by pre-heating a sheet web, folding it and blowing the two halves of the container in a mold, with flanges at the joining edges being electronically welded. The bottles are punched from the web right on the machine, filled and sealed either by heat sealing or by an inner-threaded screw closure. This unit was designed in Germany for polyvinyl chloride sheet, either unplasticized (good for oils) or plasticized, but is in the process of being converted to the use of other thermoplastic materials.

Outstanding among American developments was a new machine which will hermetically seal polystyrene lids to thermoformed polystyrene containers, using biaxially oriented polystyrene, which is said to have F&DA clearance.

Increased operating speed was a prime feature of improved models of standard machines on exhibit. But probably more important was an emphasis on flexibility. From baggers to labelers, and from overwrappers to weighers, the advantages most frequently cited were speed of change-over and the variety of container sizes and the different forms

Opening day *of American Management Assn.'s 28th National Packaging Exposition, April 13, saw 9,800 visitors pour into Chicago's International Amphitheatre.*

of packages that each machine could handle.

While several booths displayed equipment showing the ease with which polyethylene can now be fed and sealed on automatic wrapping machinery, a new horizontal packaging unit capable of handling a wide variety of product shapes and sizes demonstrated a speed and simplicity of mechanical action that may greatly increase the popularity of this packaging technique. In this unit, the film web is fed along a loading conveyor, then folded over the product and longitudinally sealed. Unique sealing jaws on a rotary drum close the pouch package.

New progress in heat-transfer labeling drew interest with the first public showing of two compact rotary machines that apply pre-printed designs to round and oval squeeze bottles or flat films at speeds up to 150 impressions per minute.

Rotary action—an increasingly popular mechanical motion—was also used in another labeler that applies pressure-sensitive labels or tape to virtually any kind of container. This machine is so fast—up to 2,500 labels per minute—that no application has yet been found that can utilize the full output. Several other new labelers pointed up an opposite approach with slow speed but great versatility in use. And a thermoplastic labeler for bottles has now been integrated with an automatic capper, reportedly for the first time.

Bag fillers and sealers were plentiful. Among the most important developments were: (1) a turret-type bag handler that picks pre-formed bags from a stack, opens them for either hand or automatic filling, then closes them and (2) an automatic jaw sealer that heat seals a saddle label on bags made from either thermoplastic or cellulosic materials.

Another semi-hand operation now put under automatic control is the lidding of set-up boxes. An in-line machine on display quickly adjusts so it can handle boxes from 1¼ in. square to containers measuring 22 by 14½ inches. Speeds range from 30 to 300 boxes per minute.

Advances in blister packaging were highlighted by two units: (1) a flexible turret-type machine that indexes up to 22 stations per minute and can produce multiple or single packages within a 7-by-9-in. area and (2) an attachment to a standard skin-packaging machine that quickly and economically converts this unit to blister packaging.

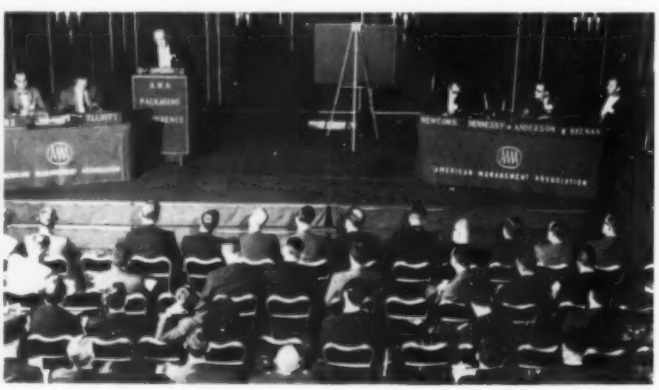
Pharmaceutical packagers saw several advances in their area. Most notable was a modification of a standard tablet counting and packaging unit that enables round, square or oval bottles to be fed and filled automatically under accurate electronic control. An unusual cottoner on this machine employs offset alternating tuckers to pack the cotton wadding precisely and completely in the necks of the bottles. Also of interest was a new ampoule packer with rack-type feed and automatic filling and sealing.

New techniques for bulk and industrial packaging were scatttered, but important. A trend toward tighter multiwall bags was underscored by a new laminated polyethylene foil-paper shipper, shown with a new closing machine that heat seals the inner plies to form a highly resistant barrier, then folds and tapes the top for structural strength.

Handling equipment for corrugated shippers included a new dual-feed case opener holding from 300 to 400 knocked-down cases in two hoppers; it will open and push them on a loading horn at better than 30 cases per minute. At another booth, an in-line loader for putting cartons into shipping cases was connected to a standard case gluer and compression unit, illustrating another example of integrated machinery. For packagers who strap their cases, there was an automatic unit that will put steel straps on a case in any desired position without the need for a machine operator. The "brain" for this mechanical action is a sensitive detector that spots band positions by means of staples, metallic inks or metallic paper, applied during manufacture.

Foreign machines appeared to be on the increase at the show. Among these was a French semi-automatic bagger of great accuracy that had a companion machine for gluing and closing the paper packages and a series of semi-automatic labelers for bottles that can handle either spot or wrap-around labels in a wide range of shapes and sizes.

Packaging conference, *staged at the Palmer House during the first three days of the Show, attracted 750 to its five half-day sessions on a wide range of packaging subjects.*



Show figures

Sponsored for the 28th year by the American Management Assn. and managed again by Clapp & Poliak, Inc., this five-day show failed to break attendance records. It was down more than 5,000 from the last previous Chicago show in 1957, but the dif-

Four and a half acres *of floor space at Show accommodated 376 booths—fewer exhibitors than last year, but a record total display area.*

ference could be attributed to the $2 registration fee, in effect for the second year but which was not in effect last time in Chicago. The net result of the admission charge was to restrict attendance to those who had a serious interest in the exhibits and few complaints on this score were heard.

Last year's show at the Coliseum in New York set the all-time AMA attendance record of 35,400. Eastern shows, both in Atlantic City and New York, have usually drawn larger attendance than those held in Chicago's International Amphitheatre, which is located 5½ miles from the Loop.

This may have been the last showing at the Stockyards. The 1961 show, April 10 to 14, has been scheduled for Chicago's big new lakefront exposition hall, pending a guarantee of completion. The hall is now under construction a short distance south of the Loop. The 1960 show, as previously announced, is due back in Atlantic City next April 4 to 8, although reconstruction work under way in Convention Hall is delaying final commitment.

Success of the registration fee apparently has made it a permanent fixture for the AMA Show. As was the case last year, AMA will take no profit from the $37,000 received at the gate, but will set aside 50% as a fund for research and education in packaging and apply 50% to a reduction of costs for exhibitors next year. During the meeting of the Exhibitors Advisory Committee in Chicago a subcommittee was appointed to consider applications from colleges, universities and other non-profit organizations to share in the education fund and to make allocations for the coming year.

Exhibitors this year numbered 376—down from the 390 high of last year. Yet exhibit space hit a new high of 146,000 sq. ft.—up about 9.5% from last year and indicating extra space per exhibitor and thus roomier booths or more elaborate displays. Use of more space by individual exhibitors may be explained, the show management points out, by the number of company mergers that require greater area to present the enlarged companies' broader output. While machines were shown by both machinery manufacturers and materials suppliers, several of the largest mnufacturers of machinery were not represented.

Two new features at the show drew wide and favorable comment. First was the spacious $35,000 draped and carpeted entrance lobby, done in light gray, which was acclaimed by many show goers as the most beautiful they had ever seen at any trade exposition. Multiple check-in desks handled the crowd smoothly even during Monday's peak registration, when 9,800 checked in.

Another popular feature was a personal address plate furnished, on request, to each registrant. Estimated by the show management to have been used by about 60% of the attendees, these plastic imprint cards greatly speeded requests for manufacturers' literature and were used by many exhibitors to record data on order and follow-up forms.

Conference papers

An AMA Management Report based on the papers delivered during the three-day conference at the Palmer House will be available from the American Management Assn., 1515 Broadway, New York. Conference attendance was reported as 750, of whom 324 attended the opening session on Monday. Following are brief abstracts of all papers, to help readers determine their further interest:

Top management appraises packaging—president's panel session

Chairman, C. L. Rumberger, *vice president, research and quality control, H. J. Heinz Co., and AMA vice president in charge of packaging division.* R. C. Rosecrance, *president, J. L. Clark Mfg. Co. Mr. Rosecrance presided in the absence of Mr. Rumberger.* Leland R. Srigley, *superintendent, general finishing division, Parke, Davis & Co., conducted the question-and-answer session.*

J. Clinton Bowman, *president, Bowman Biscuit Co., Div. of United Biscuit Co. of America.* Packaging activities have become based on a complicated structure of scientific ele-

ments and facts. Despite this, every now and then we hear of a successful case of flying blind that defies all rules or violates the principles of acceptable package production. We experienced just such a piece of luck in our company.

A large and costly inventory of opaque paper bags was a source of considerable concern to management. One day, in a desperate attempt to liquidate this stock, we decided to overstrip the original printing with a new name panel and use the make-shift bags to package a newly created cookie. The product had merit, but the bag was an ugly-duckling mess by all standards. Each unsuspecting salesman was given a quota to sell and there were a few suckers who made a run for it. Then came the surprise. The slow-moving inventory was soon depleted and a new opaque paper bag was quickly designed. Out of the comedy of errors and desperation came a new concept in cookie packaging that has swept the baking industry—a homely type of package, apparently, that appeals to the consumer as a big value.

M. P. FRAWLEY, *executive vice president, B. T. Babbitt, Inc., appearing for* MARSHALL LACHNER, *president of B. T. Babbitt.* Although packaging may very well be your most important contact with the consumer, today's retailer exercises vastly more influence on that packaging than was true in the past. Since much of the cost of modern distribution is the cost of handling packages, the retailer's problems must be of very real concern to the manufacturer and to his packaging people. In packaging today, a knowledge of the chain's warehouse, of the chain's profit picture, of the realities of modern marketing are just as important as a skill in graphics. Mr. Frawley illustrated this point by describing how his company won a place for itself in the insecticide field by repackaging its Hep insecticides under the Bab-O name with just two products—one for flying insects and one for crawling insects, each packaged in just one size. This procedure offered retailers relief from the problems of too much inventory, too many brands, too much shelf space and warehousing, too much customer confusion.

GEORGE D. BILLINGS, *director of public relations and advertising, G. H. Tennant Co., appearing for* LLOYD HALE, *president of G. H. Tennant.* Mr. Billings outlined the rigid requirements for packaging maintenance equipment, used for everything from sweeping factory floors to nuclear fall-out debris, that may be shipped anywhere in the world. He cited the objectives: (1) protection to the point of overpackaging if it assures safe delivery; (2) sometimes display in transparent polyethylene if this encourages more careful handling because the carrier can see the product and be made aware of its fragile characteristics; (3) economy from the standpoint of package weight, size, shape and other factors affecting shipping and handling costs; (4) appearance from the standpoint of reflecting the quality of the product and creating favorable customer impression; (5) complete information about assembling and operation of the equipment. He mentioned a battery of cleaning machines that stood idle several days at Cape Canaveral because the use of a simple $2.47 attachment was not made clear in the instructions with the original package.

He described to what lengths the Japanese are going to create a favorable impression with packaging for precision instruments, such as plush-lined cartons for hi-fi phonograph turntables. This elaborate carton, he stated, says in effect: "This is a sample of craftsmanship and precision—take good care of it, please."

R. R. NEWQUIST, *president, Roots-Connersville Blower Div., Dresser Industries, Inc.* To top management of industrial manufacturers, packaging covers all the areas that contribute to "wrapping up a sale." Our package is what the customer sees—style with performance—backed up by advertising and trademarks. All these phases must be the concern of top management for those who want to live and grow. We are a capital-goods manufacturer that makes blower and compressor equipment to handle air and gas at capacities of from 10 to 300,000 cu. ft. per minute, at pressure of from one to several hundred pounds per square inch. To us, the package is a design that we wrap around an element that does the work of protection prior to installation. The creation of this design involves many departments of our company—sales, research, marketing, engineering, purchasing and production. These departments can be more effective and contribute more if they have the active interest and backing of top management to set the policies and assume responsibility for active direction of packaging problems.

WALLACE L. PIERCE, *president, S. S. Pierce Co.* The cornerstone of S. S. Pierce merchandising has been the private label. It has been well known in the trade that S. S. Pierce buyers always talk first about quality and only later about price. And labels must express that quality of content. We have more than 2,500 private labels and deal with some 500 packers and producers. The design of these labels, of course, has seen many changes but, surprisingly, there has been a strong line of continuity. Our favorite color is red and our leading brand, as it has been since the beginning, is still the Red Label, but with many improvements in legibility and pictorial treatment to meet the needs of self service.

We try to keep informed of all packaging developments, to the end that our packages and labels may contribute to customer convenience and satisfaction. At the same time we must be careful that our packages and labels never distract from the main point—that S. S. Pierce on the label is a guarantee of quality and value.

Our goal must ever be for the husband who says after his wife has served him a dinner built around our items, "Gee, Honey, that was great! Let's have it again." Because it's what is in our packages that brings the repeat orders.

FOSTER B. WHITLOCK, *president, Ortho Pharmaceutical Corp.* The character of a pharmaceutical company is largely reflected by the face its products present to the consumer. Top management, therefore, is vitally concerned with (1) adequacy of the package to contain the product under a wide range of climatic conditions; (2) functional design and the utility of the package; (3) esthetic appeal and rapid identification of the package through design elements; (4) packaging costs. Pharmaceutical companies maintain extensive developmental and package testing laboratories to select and set specifications for containers and closures. In discussing functional packaging, Mr. Whitlock described Ortho's ingenious break-apart package for diagnostic blood serums. (See "Now It's Pop-It Packages," MODERN PACKAGING, Feb., 1959, p. 100.) He described the difficulty of effecting economies in pharmaceutical packaging by automation due to the many short runs. Despite this, he estimates that his management's careful attention to package design and improvements in methods have lead to mechanical techniques that have decreased packaging labor costs 13% while sales have increased 62%.

Package design and package utility

Chairman, JOHN E. MERZ, JR., *manager of transportation services, engineering and manufacturing staffs, Corning Glass Works. Associate chairman,* CARMON M. ELLIOTT, *manager, package design division, Eastman Kodak Co.*

New Uses for Aluminum—F. B. NEWCOMB, *vice president, commercial development, American Can Co.* Interest in aluminum cans by both canners and can makers has heightened sharply in recent months as aluminum prices become increasingly competitive with tinplate.

Aluminum cans may be made successfully today by four processes: drawing, reverse impact extrusion (most familiar to U. S. canners), forward extrusion, and drawing and ironing. Soldered seams have so far presented technical problems and, for the time being, seamless cans are most practicable, although welded or cemented side seams are an eventual possibility.

Even with high-strength alumin- [*Continued on page 205*]

another family of prestige products packaged by BURT

Fresh Roll-on and Cream Deodorants

Folding cartons manufactured for
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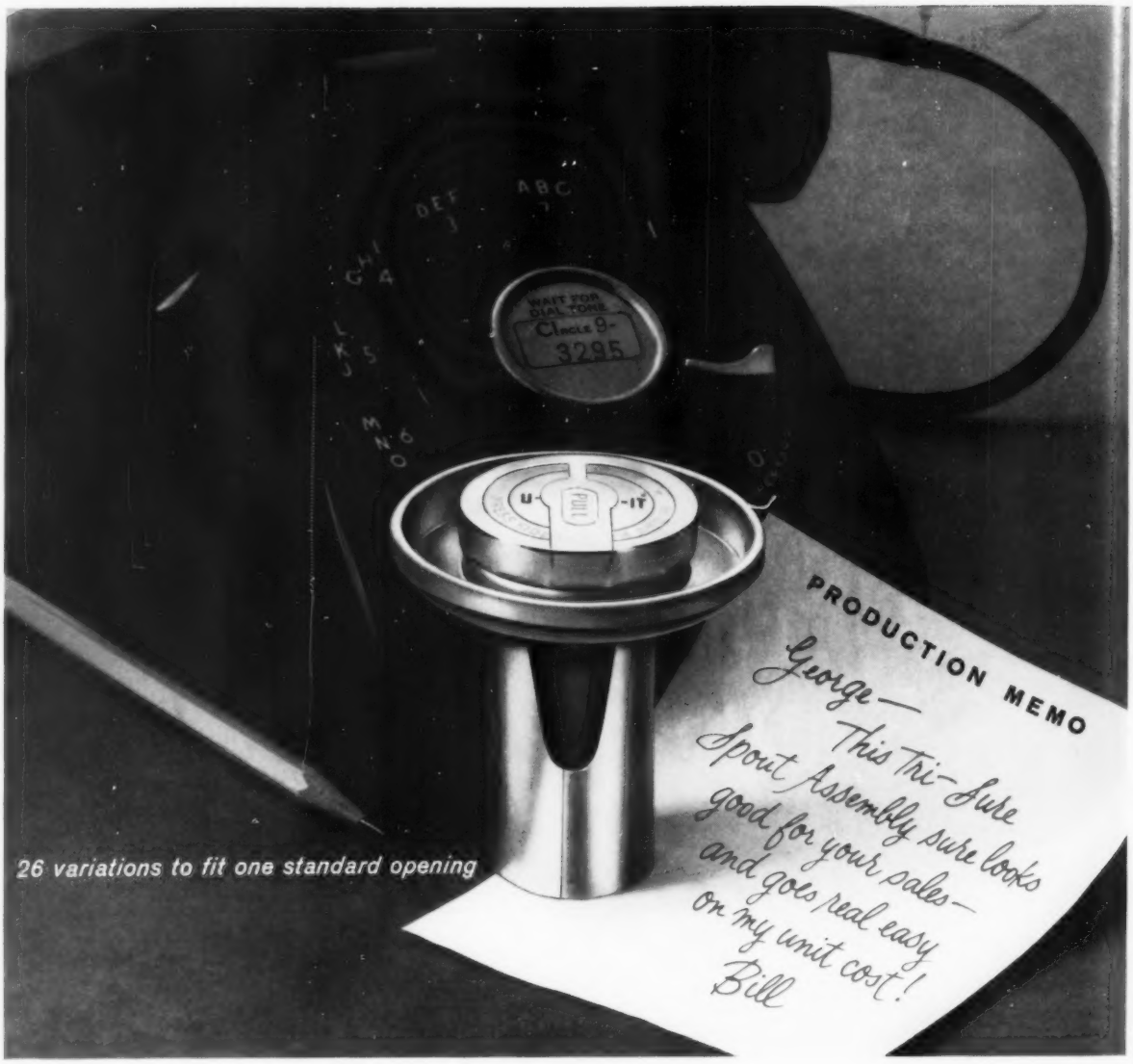
The N. Burt Company, Inc. Manufacturers of Small Set-up Boxes, Folding Cartons, Transparent Containers. 500-540 Seneca St., Buffalo, N.Y.
Offices in Principal Cities or Write Direct. Canadian Div.: Dominion Paper Box Co., Ltd., 250 Islington Ave. S., Toronto 18, Canada


WAIT FOR DIAL TONE
CIrcle 9-
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PRODUCTION MEMO
George—
This Tri-Sure Spout Assembly sure looks good for your sales—and goes real easy on my unit cost!
Bill
26 variations to fit one standard opening

NOW— A LOW-COST SPOUT ASSEMBLY... FOR BIG-VOLUME USERS!

American Flange developed it—the Tri-Sure* Push-Pull Spout Assembly with Clinch-On* Nozzle. First pail spout that pours right and goes light on unit costs!

Now American Flange closure experts have come up with a spout assembly—in 26 variations—offering a new kind of smooth-pouring performance—without a fancy price tag.

*TRADE-MARKS OF AMERICAN FLANGE.

It's the *Tri-Sure Push-Pull Spout Assembly* for application *after* filling—consisting of Upressit* Cap with band (or screw cap and inner seal), a metal spout (vented or unvented), and Clinch-On nozzle. Not a tricky gadget—but a *reliable* spout assembly at a *reasonable* cost.

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Technical & Engineering

Charles A. Southwick, Jr., *Technical Editor* Robert J. Kelsey, *Engineering Editor*

High-frequency carton sealing

Use of radio waves in a new machine permits polyvinyl resin to penetrate through wax coating to effect a fibre bond that obviates need for an overwrap. *By Peter Collura**

A new concept of sealing heavily wax-coated cartons with high-frequency radio waves is being introduced to the packaging field.

The process makes use of the newly developed Concora sealer, which has been developed by Container Corp. of America in conjunction with Raybond Electronics Corp.

Specifically, the high-frequency technique offers the following advantages over the older type of sealing methods:

1. Makes possible the development of a bond that permits elimination of the overwrap, thus enabling

*Mechanical Packaging Liaison Engineer, Container Corp. of America, Chicago.

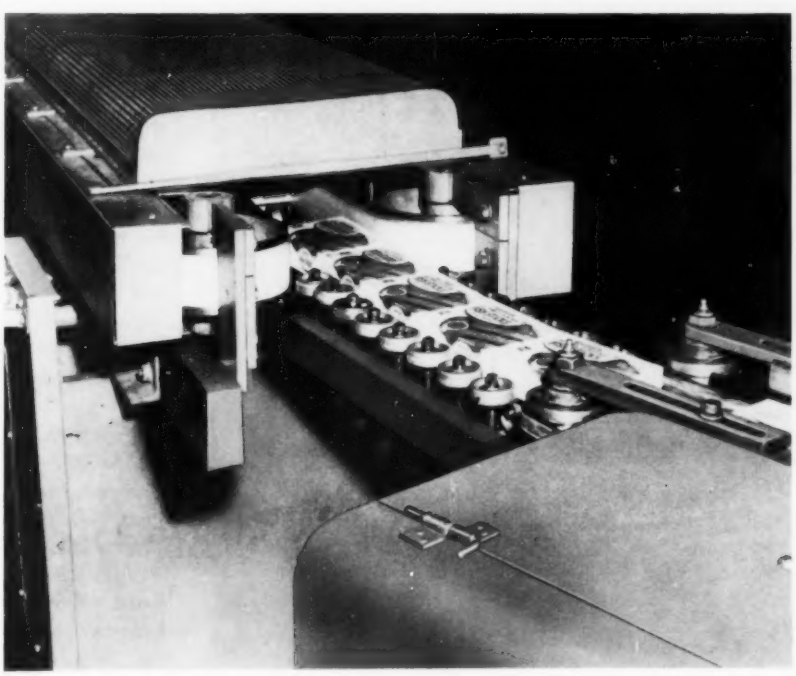


Figure 1. *Closed and filled cartons of frozen fish sticks entering Concora sealer, at left, where high-frequency waves effect a positive seal of coated carton flaps without need for an overwrap.*

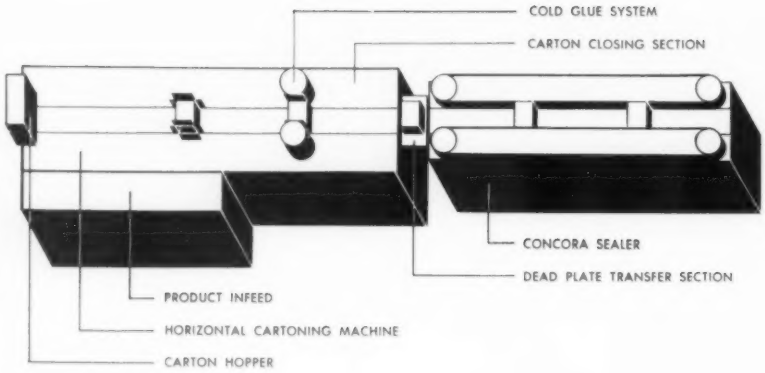


Figure 2. *Sketch drawing shows the relationship of conventional horizontal cartoning machine to the high-frequency sealer, at right. Dead plate transfer section is motivated by back pressure from the cartoner. A single operator can control the entire set-up.*

the use of convenient carton-opening devices, such as a tear strip.

2. Simple mechanical approach of machine allows minimum close inspection and supervision; therefore, the average machine operator can be used.

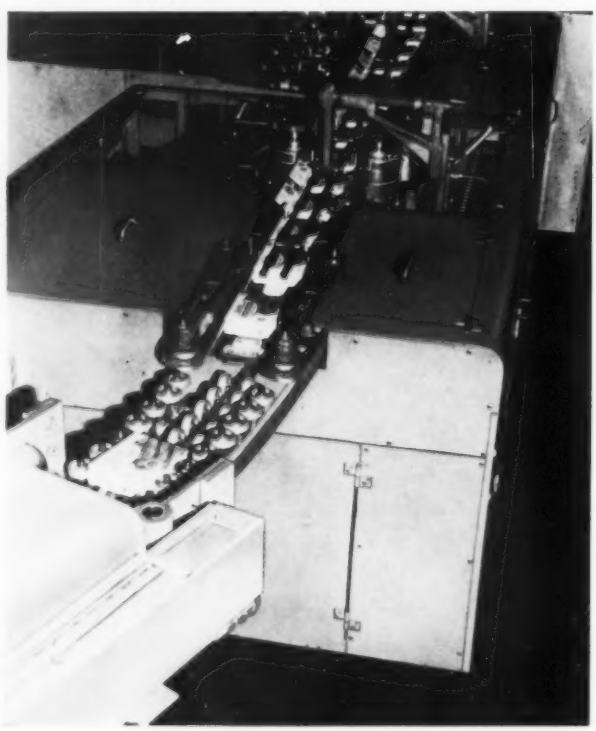
3. Makes the packaging line a convenient stop-and-go operation. When the line is down for short periods, then is started up again, cartons in process in the cartoning machine continue into the sealer, because the cartoning machine has no heat involved. The sealer is activated immediately. Preparation time is at a minimum.

4. The system operates at lower costs than the printed-overwrap method. Nearly 1,000 average-size cartons can be sealed with a pound of adhesive costing 28.5 cents. One person is saved because less attention is required by the sealer than by the wrapping machine. There is also some saving in packaging-material costs in using the system.

5. Adhesive material maintains a constant formulation at all times.

6. Inspection of the final bonds is easily made and bonds are consistently positive and deep.

Figure 3. *Photo shows operation of the cartoning machine (background), feeding through transfer plate into new sealer at left foreground. Note product being automatically loaded and controlled glue application to waxed carton flaps which are then plowed shut.*



The problem

Container Corp. has been concerned about the general problem of sealing waxed folding cartons and has spent the past two years exploring various available sealing techniques.

Carton plants have one big advantage, in that they can develop tremendous pressures on a knocked-down folding carton after it has been dewaxed. In addition, they can use a cold resin adhesive with the help of solvents.

Unfortunately, carton users do not have this advantage. Filled, expanded cartons cannot tolerate these pressures. In addition, the use of solvents in an adhesive is hazardous, since the solvent odor can transfer to the product.

Container Corp.'s search revealed a brand new concept for sealing not only paperboard, but paperboard coated with various materials. The new system involves the use of high-frequency radio waves. We found that in heavily waxed cartons we could apply a cold polyvinyl resin without a solvent directly to the waxed surface. We then make the standard end folds in the carton and finally pass the

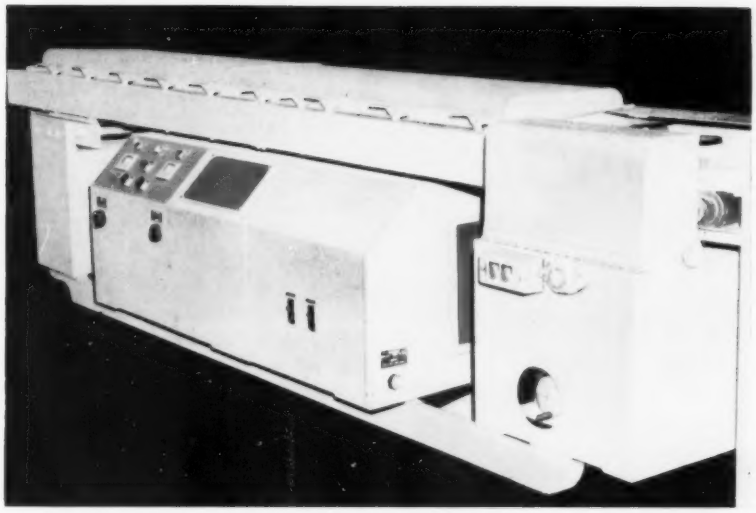


Figure 4. *Over-all view of the Concora carton sealer. The unit includes a 6-ft.-long electrode section and a 4-ft. compression section.*

closed box ends through the high-frequency field.

The high-frequency field is confined in a definite area and attacks the adhesive through the paperboard thicknesses. These layers of paperboard offer no resistance to the high-frequency waves. The wet adhesive is electrically charged by these waves and heats up to a temperature which melts the wax at the adhesive pattern. This high temperature melts the paraffin aside and allows the adhesive to penetrate deeply into the board fibres. The high temperature also evaporates the moisture so that we get a fast set in the adhesive. The adhesive is thermoplastic, so that it is not affected by subsequent temperature changes that might occur.

Container Corp. joined Raybond Electronics in this project. Both companies mutually initiated a full-scale equipment development program to put this idea into use on a production-line basis. Raybond has been active in developing, designing and building other high-frequency equipment for use by the wood industry.

As a result of the combined efforts of the two companies, the Concora sealer was developed.

Results

The unit is quite simple mechanically and, in fact, appears to be a standard compression unit. The generator, which is the major portion of the equipment, is contained in the cabinet below the conveying belts.

The Concora sealer is an independently operating unit with a variable-speed drive. It does not require any direct marriage to the cartoning unit. The filled and closed cartons are delivered from the cartoner to a dead plate, then back pressure from the cartoner moves the cartons from the dead plate into the infeed belts of the Concora sealer. The speed of the Concora sealer is a little faster than that of the cartoner. The sealer will continue to operate if the cartoner is down and the cartoner operator has optional remote-control switches for controlling the sealer from the feed station of the cartoner. Since the carton has a direct transfer to the sealer, no operator is necessary other than the one feeding cartons to the cartoner.

The sealer operates between 15 and 30 megacycles. A vacuum-tube oscillator generates the high-frequency current, obtaining its power from a three-phase, vacuum-tube rectifier hook-up. The oscillator generates from 3 to 10 kw. of power. At no load, the power input drops considerably. The output power is applied to a stray field electrode and the cartons are carried through the 6-ft.-long electrode section and the 4-ft.-long compression section by specially fabricated belts.

The stray field electrode develops an electrostatic field in the form of loops between each electrode bar. The field strength is inversely proportional to

TABLE 1 TECHNIQUES FOR GLUING PARAFFIN COATED FOLDING CARTONS

1.	REGISTERED PATTERN WAX APPLICATION		WET ADHESIVE	MODERATE PRESSURE
2.	DEWAXING (HOT AIR OR LIVE STEAM)		WET ADHESIVE	HEAVY PRESSURE
3.	DEWAXING (ELECTRICALLY HEATED ELEMENTS)		WET ADHESIVE	HEAVY PRESSURE
4.	DEWAXING (ELECTRICALLY HEATED ELEMENTS)		HOT MELT REFRIGERATE	LIGHT PRESSURE
5.	WET ADHESIVE	ELECTRONIC SEALING		LIGHT PRESSURE

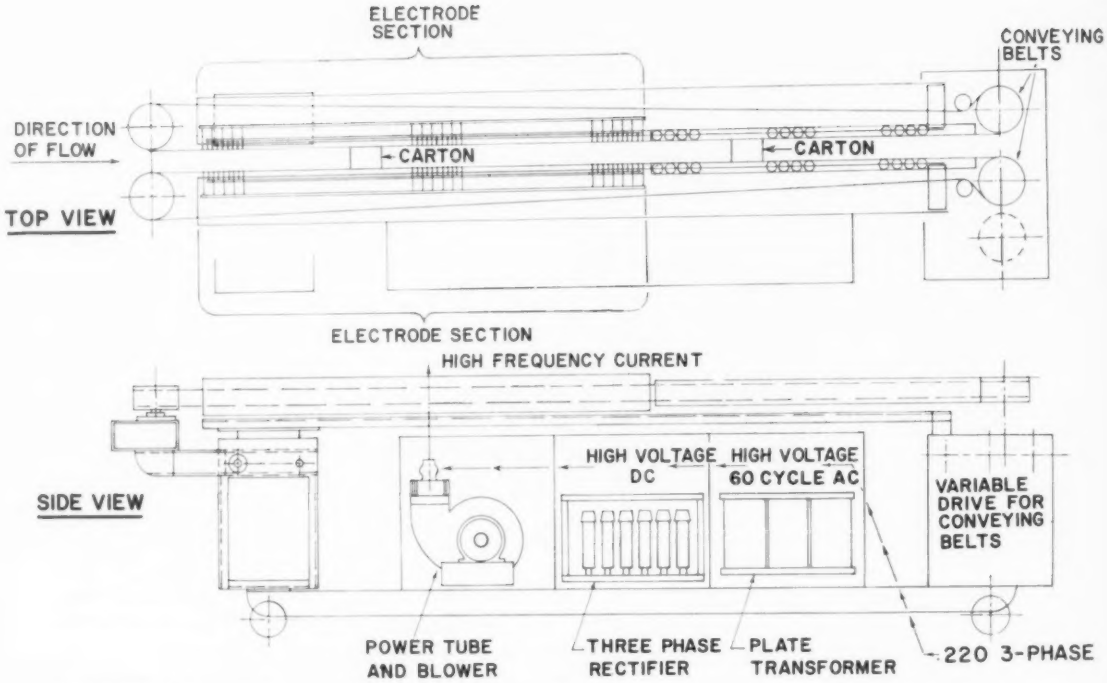


Figure 5. *Schematic diagram of the high-frequency sealer, top and side views. Belts which both convey and compress the cartons are made of specially fabricated material.*

the distance from the plane of the electrode bars. Thus, as a closed carton is conveyed between the electrode sections, each end of the carton passes through strong electrostatic fields. This has a pronounced heating effect on the carton end flaps, as well as on the wet glue between the flaps. Because of its high dielectric constant, the loss factor of the adhesive is 10 to 12 times that of the carton flaps, so a selective heating effect is obtained.

The package contents are unheated because of their greater distance from the electrodes and short exposure to the comparatively weak field. The heating of the glue melts the paraffin aside and allows the adhesive to penetrate deeply in to the board fibres.

Advantages

One advantage we have found with our initial installation is that costs have been exceptionally low. The original sealer has been running for nine months and, in that time, has burned out one small tube costing $6. This is with the line running every day for one full shift. We also found that a plant electrician can understand the electrical system and service it without too much trouble.

Another advantage is that the line does not require pre-warming of any section of the cartoner or sealer. The glue system is drained and cleaned at the end of each shift. The glue is applied in an etched pattern by vertical transfer cylinders and the glue is pumped in a circulating gear-pump system.

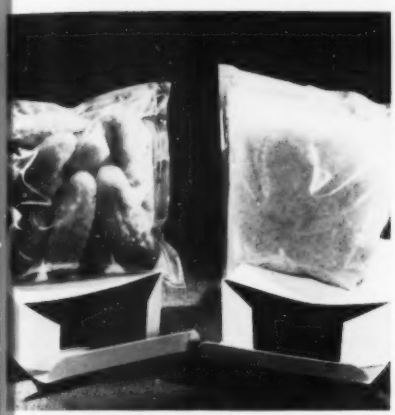
If the cartoner machine should shut down for short periods, it can be started up again and cartons with wet adhesive applied can still be sealed through the sealer. The adhesive does not take on any physical changes because heat is not used in the system.

Since a material of high loss factor is necessary to call for the high-frequency field, any carton passing through the sealer without adhesive applied will fail to heat and no bond appears. This gives an immediate warning to the line attendants that something has gone wrong at the glue station. Other sealing techniques do not offer this warning and many times marginal sealing is not detected until packages get to the retail level.

The current Concora sealer installations are producing line speeds of up to 125 cartons per minute. However, the equipment has been shop tested to seal cartons up to 300 per minute.

The Concora sealer is currently being used by Gorton's of Gloucester, Gloucester, Mass.; Pennsylvania Frosted Foods, South Hampton, Pa., and the Connecticut Pie Co., Wethersfield, Conn.

FROZEN FOODS are attractively packaged in envelopes of "Scotchpak". Delicate seasoning is preserved during preparation—since food can be boiled in bag.



PICKLES, SAUERKRAUT and other foods packaged in a brine or broth are pasteurized, packaged, and displayed in compact, lightweight envelopes of "Scotchpak".

VACUUM-PACKED foods stay vacuum-packed in "Scotchpak"! Film has low permeability to air, other gasses and water vapor. Cuts packaging and shipping costs.

"SCOTCHPAK" TAKES OVER

and streamlines a multitude of packaging jobs!

Looking for a film that's *tough*, clear as glass—one you can freeze or boil? And would you like that same film to be heat-sealable with a seal that's as tough as the film itself? Then your answer is "Scotchpak."

Here is a film that combines the best features of many films. It can be heat-sealed in less than 2 seconds—a temperature of 300° to 400° F. and 20-60 psi is all that's required.

"Scotchpak" Film resists freezing cold (down to -70°F.) and boiling heat (up to 240°F.). It resists acids, oils, alkalies and organic solvents. It is light (saves shipping costs!) and compact (saves space in shipping and on the shelf, too!)

"Scotchpak" is now available in roll-stock widths up to 50 inches—from 2 mils to 4.5 mils thick, ready for printing—if you desire. It can be easily handled on conventional bag-making and filling equipment.

Our Customer Service organization is ready to work with you to show you how "Scotchpak" can solve your film fabrication and packaging problems. For complete information, write Film Products Group, Dept. TD-69, 3M Company, St. Paul 6, Minnesota.

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. . . WHERE RESEARCH IS THE KEY TO TOMORROW

3M COMPANY

Improved liquid filling

Engineering research applied to the precise piston-filling method solves a problem for 3-in-One oil, giving dripless, accurate fill at 110% higher speed. **By Cecil Edgar***

There are two general methods of filling liquid into bottles. One of these, called the vacuum method, has been widely accepted for many years. Today the piston-filling method, due to its accuracy and high-speed filling possibilities, is finding new applications in the filling field.

The vacuum method utilizes a nozzle inserted into the container. The liquid is fed into the container until it reaches a level whereby the vacuum holes in the nozzle are covered, thus cutting off flow through the filling nozzle.

The piston method uses a positive filling arrangement whereby a piston in a cylinder is advanced to feed liquid through a nozzle into the container. The amount of liquid which is delivered to the container is governed by the stroke of the piston. Once the stroke of the piston is set, uniform fills are then consistently delivered to the containers.

Problem

Recently we faced a filling problem posed to us by the management of the Boyle-Midway Div. of American Home Products Co. They were looking for higher speed in the filling of their 3-in-One brand of oil into two sizes of the well-known metal container with dispensing spout used for the product.

Their initial interest in the piston-filling method was the inherent fill accuracy which this method provided regardless of container size variations for which fill-to-a-line methods could not be adjusted except by overfilling. We had recently developed an unusual patented Exacto-metric metering cylinder and valve assembly that made possible guaranteed fill accuracies within 1% on every fill. This had been production proved to the satisfaction of the Boyle Midway management.

As shown in Figure 1, the heart of this metering cylinder and valve assembly is an adjustable suck-back, no-drip feature provided by a needle valve control. When filling containers, the metering cylinder piston A advances to the right. Valve B is open and valve C is closed, thus directing liquid from the cylinder to the filling nozzle. When the container is filled, metering cylinder piston A retracts to the left, valve B closes and valve C opens, thus allowing liquid to be drawn from the supply reservoir to the cylinder. However, during the filling of the metering cylinder, a small amount of suction is maintained in the filler-nozzle line through the

*Chief Draftsman, Arthur Colton Co., Detroit.

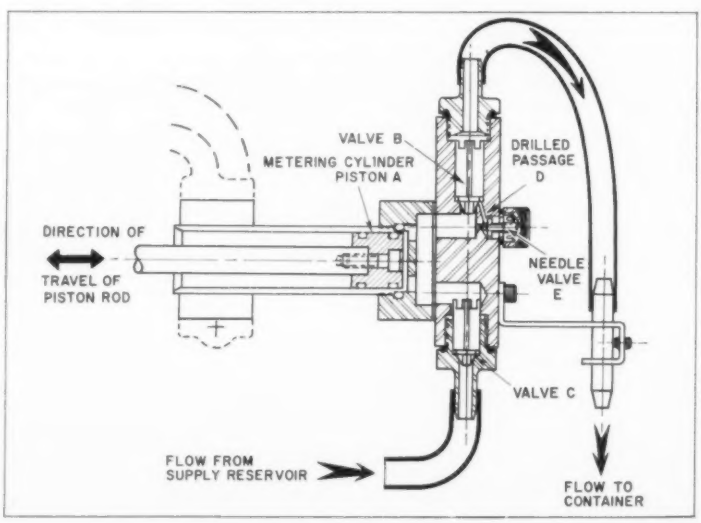


Figure 1. *Special feature of patented Exacto-metric metering cylinder and valve assembly is an adjustable suck-back, no-drip device. Needle valve E is adjustable to control suction according to the liquid's requirements.*

angular drilled passage D. This controlled suction effectively avoids dripping of the product and can be adjusted by the needle valve E to suit the liquid product requirements.

This no-drip feature was of interest to Boyle-Midway because they had previously required the services of two girls to wipe off the cans due to drip from vacuum-filling nozzles.

High-speed filling was the first requirement imposed by Boyle-Midway. They had been filling at a rate of approximately 65 cans per minute with the vacuum method. To achieve higher fills with the vacuum method would have required heating of the oil. Their first request was for a machine that would provide them with a production of 240 fills per minute. We worked on the basis of this production rate for a period of more than a year and found that we were unable to supply one of our standard fillers to meet this requirement.

Experimental

When we were unable to meet the 240-fill-per-minute requirement, the company again sent in an inquiry with container samples for a fill rate of 150 fills per minute. We tried out the method in our production laboratory on one of our standard "Little Giant" single-nozzle fillers and proved to our satisfaction the feasibility of providing a fill rate of up to 170 fills per minute. We took the order, delivered one of our standard Model 126A multiple liquid six-nozzle fillers with a stand and index table, then found to our consternation that the machine would not satisfactorily fill the 3-in-One oil into the metal containers.

Thus began another rather interesting engineering design problem. By referring to Figure 3, it can be seen that the metal container at the filling operation has a pierced hole with a downward lip into which a metal spout is assembled at a later point in the production line. Also, it will be noted that the juncture of the top with the sides of the container has very nearly square corners.

The reason we ultimately found for the failure of the Model 126A to fill properly was the formation of a liquid film between the filling nozzles and the filler hole in the can. This film, formed because of high liquid-flow rates, trapped air in the top corners of the container and behind the edges of the pierced hole. As a result, the filling operation ran into difficulties of splashing, bubbling and boiling out of the liquid product.

Much of the problem, we felt, was due to minor errors in the container cover that caused an off-center condition of the pierced hole. Our first attempt at arriving at a solution was to install a comb-type guide assembly that would accurately space

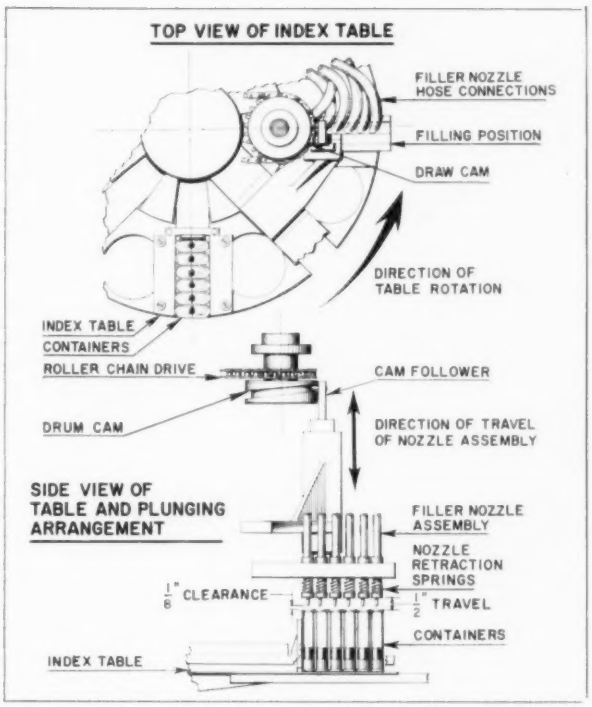


Figure 2. *Details of Colton plunge-nozzle filler. Addition of cam drive between filler motor drive and nozzle support enables nozzles to plunge ⅛ in. into can openings, thus avoiding air entrapment. Plunging nozzle also provides automatic can-centering action.*

Figure 3. *Cans used for 3-in-One oil present certain problems in exact filling because pierced opening has a downward lip and juncture of top with sides of container creates corners which are almost square, tending to trap air in high-speed filling.*

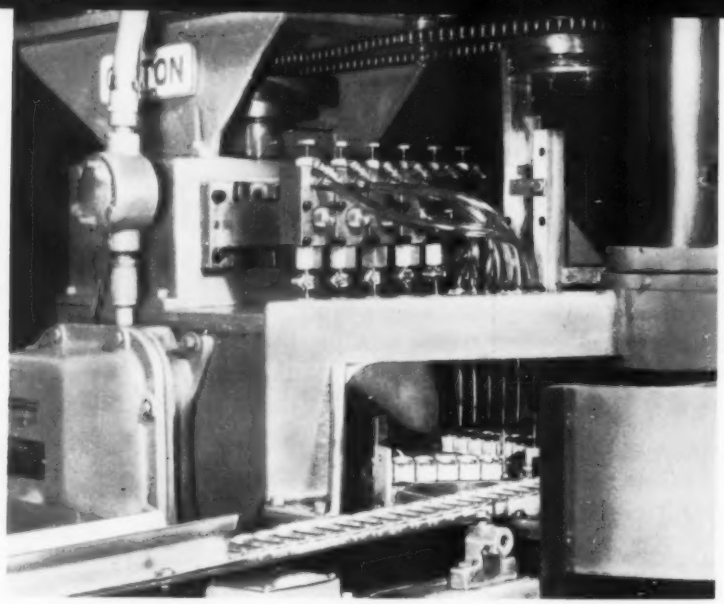


Figure 4. *View of metering cylinders and the plunge-nozzle assembly.*

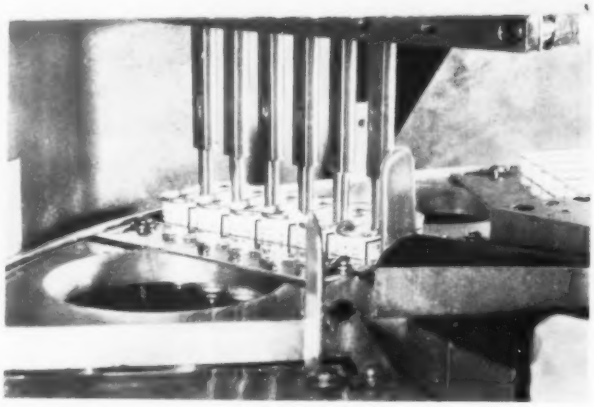


Figure 5. *Close-up view of the filler with nozzles in filling position.*

the containers for the filling operation. This was a failure because it only took care of the pierced hole's off-center condition in one direction.

Solution

The method which ultimately licked the problem was one that utilized a plunging-nozzle principle. Addition of a cam drive, Figure 2, between the filler motor drive and the nozzle-support bracket enabled us to provide nozzles that would plunge about $^{3}/_{8}$ in. into the container, thus providing a filling point well below the air-trap areas. This plunging nozzle also resulted in providing an automatic centering device to align each container properly for the filling operation.

Since the only area for air escape during the filling operation was between the container pierced hole and the nozzle, the minor off-center condition plus the restricted area left something to be desired in the filling operation. Reducing the O.D. of the nozzle, as shown in Figure 2, provided the necessary additional area for air travel.

Two further design refinements are being added to the filler to meet the production requirements. A friction clutch is being added to the motor drive to prevent damage in event of line jam-ups. Also, a spring-loading feature is being added to the nozzle mounting to enable each nozzle of the filler to retract in the event a container is fed upside-down to the machine.

In the filling operation at Boyle-Midway, large 3-oz. containers for domestic sales and a small 1-oz. container for export are filled at different times on the same line. The difference in the container is one of height only. Thus the same Model 126A filler will handle either by making nozzle-height and piston-travel adjustments. Figure 4 shows a view of the metering cylinders and plunge-nozzle assembly. Figure 5 shows a close-up view of the filler with the nozzles in filling position.

Results

The advantages gained by this application of piston filling, as demonstrated by the successful Boyle-Midway operation, may be summarized as follows:

1. *Accurate fill.* Considerable savings have been achieved due to lack of need for overfilling.

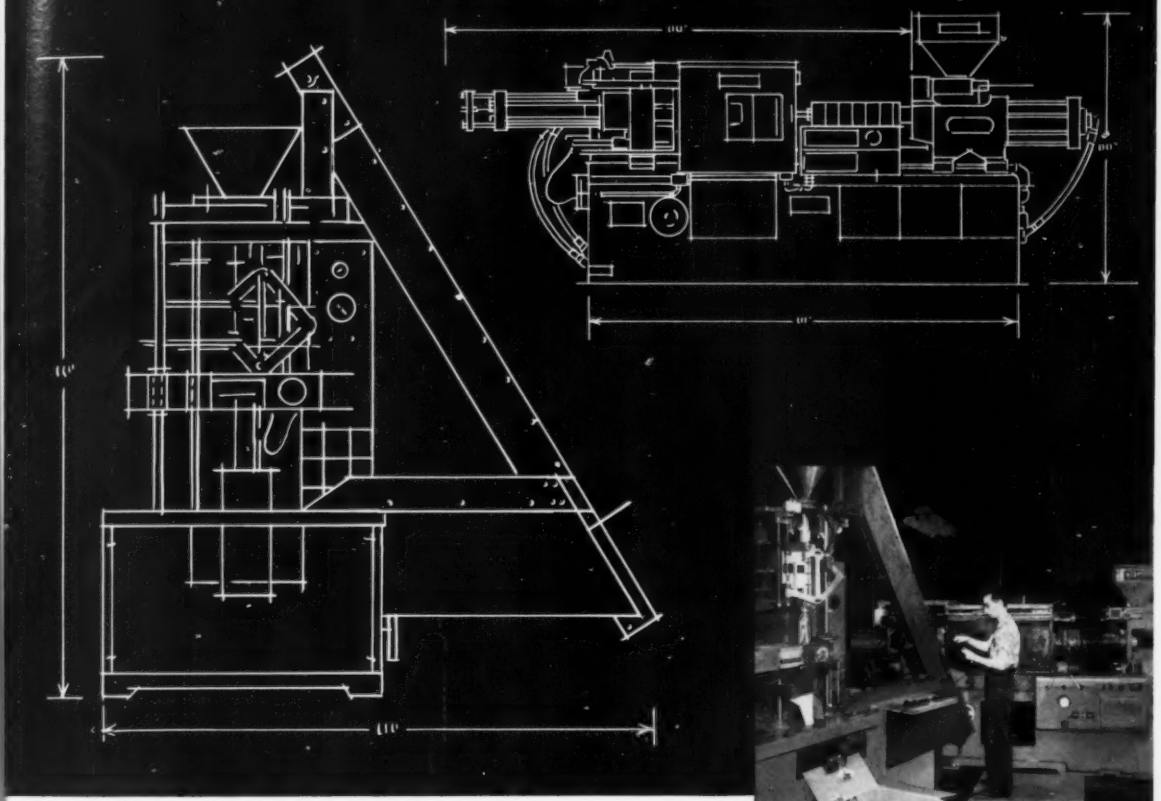
2. *High-speed operation.* The current production rate of 142 fills per minute is 110% greater than the previous method. (The machine is capable of 170 fills per minute.)

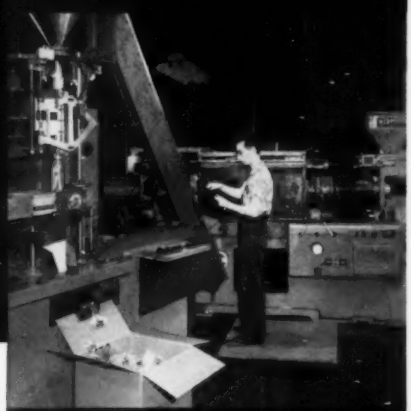
3. *Clean fill.* This results from the proven, adjustable "suck-back" control.

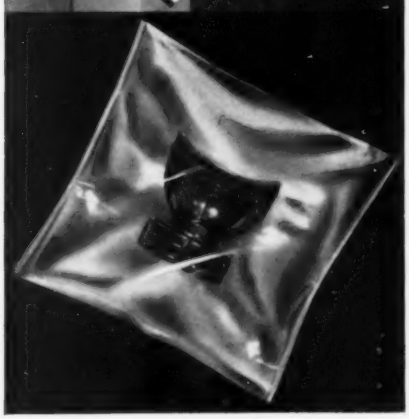
4. *Space saving.* The index-type machine requires less space than the previous method.

5. *Heating operation eliminated.* Adequate filling speeds are achieved on this machine without requiring heating of the liquid.

BLUEPRINT FOR AUTOMATIC OPERATION
BY PACKAGE MACHINERY COMPANY







Integrated Molding and Packaging Cuts Cost for NOSCO Plastics

"A Reed-Prentice injection molding machine was giving us excellent quality on our eyecups," said Mr. Charles Wingerter of NOSCO Plastics. "Our big problem was to individually package these eyecups automatically and economically."

Package solved NOSCO's problem by putting a Transwrap machine on the manufacturing line. The eyecups molded on a Reed 8/10 oz. machine are transferred by conveyor lift to the Transwrap. In one completely automatic operation the Transwrap forms the package, drops the eyecup into it and seals it ready for shipment to the customer. Only one person is needed to supervise the entire operation.

Package Machinery offers you the broadest selection of automatic equipment available today—and, through its Reed-Prentice Division, a complete line of injection molding machines for the growing plastics field. Your Package representative can tell you about this line of equipment, and how you can use it to add a competitive edge to your products.

PACKAGING IS PART OF YOUR PROFIT PICTURE

PACKAGE MACHINERY COMPANY, EAST LONGMEADOW, MASS.

PACKAGE

REED-PRENTICE

a division of **PACKAGE MACHINERY**

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Questions & Answers

This consultation service on technical and engineering packaging subjects is at your command. Simply address your questions to Technical Dept., Modern Packaging, 575 Madison Ave., New York 22, N. Y. Your name or other identification will not appear with any published answer.

Blistered, curled labels

Q: *We are having serious trouble with blistered and curled labels on our syrup bottles. The bottle is a standard round shape and the labels are square and not very large. The labeling is done on the bottles as they leave a steam sterilizer and spray cooler. At this point the bottles are warm. We are using a standard labeling machine and have tried many different kinds of adhesives. After the bottles have been in the shipping cases, the labels show blisters and cockling. What is the best way to make these labels stay flat and well adhered?*

A: It would appear that your labeling problem is caused by applying the labels to warm and wet bottles. If the bottles would come to the labeler cooled and dry, and if the proper kind and amount of adhesive were applied, the labels would stay flat and smoothly adhered.

If, however, the bottles come to the labeler warm and with occasional water drops, and labels are applied under these conditions, there will be poor adhesion and blistering of labels. Under these conditions, an excess amount of water is trapped between the label and the glass, and blistering is caused by the vapor pressure of the entrapped water. The adhesive is also weakened because of dilution by the excess water and the net result can be a wrinkled, blistered or badly distorted label after drying in the shipping case.

Another factor that can cause blistered labels is a heavy overprint varnish or lacquer. Such a coating over the printing has the effect of sealing in the water and water vapor, and if the bottle is warm, blistering will occur.

The answer to your problem is to have cool, dry bottles going to the labeler, use the minimum amount of recommended or proven adhesive and use labels with little or no surface coating or varnish. Proper care and storage of label inventory will also help keep the labels flat.

Improved package for springs

Q: *Our product, straight springs for 400-day clocks, is packaged in envelopes, each spring being separated by short lengths of paper "soda" straws glued into the envelopes. Despite the fact that all packaging elements are paper, the hand operations make this an expensive package. Could you suggest a better and lower-cost package which could be assembled by machine?*

A: There are various ways in which you could cut the cost of your present package. Inexpensive jigs and conveyors would enable you to handle the straws and springs in multiples and thus smooth the flow of both packages and product. However, we assume that you are already doing all possible in this area.

Two main possibilities for improved packages for your product are thermoformed plastic trays and paperboard packages utilizing single-faced corrugated board.

Use of single-faced corrugated would eliminate hand assembly of the package dividers and enable high-speed placement of the delicate springs. The container could be completed either by gluing a sheet of kraft over the corrugated, or by slipping the die-cut corrugated into a paperboard folder or envelope.

Transparent thermoformed plastic tray packs with internal dividers or pockets to hold each spring is a more elaborate package, but has certain functional and merchandising advantages. It would give full view of contents, enabling a visual check on the size and type of spring inside. Perforations could be made in the package so that each spring would be in its own individual compartment; thus the individual units can be torn off without exposing the other springs in the package. Proper selection of plastics can give a strong and highly protective package, as well as a much longer shelf life.

Patra House,
Leatherhead, Surrey, England.

To the Editor:

In Modern Packaging, Aug., 1958, p. 122 ["Shelf-Life Determinations," by R. Heiss, Munich], a method is described for measuring the moisture-vapor transmission rate of packages by direct weighing of packages filled with silica gel and exposed to an air current of 2.5 m./sec. at 68 deg. F. and 65% R.H. The claim is made that this method is "about 10 times as accurate as the currently practiced Patra dish method."

We believe that this passage may well give the wrong impression to your readers. Patra has never claimed that the dish method can be used to measure the uptake of completed packages. It is no more than a convenient means of comparing the moisture-vapor permeability of different materials. On the contrary, we have been careful to point out that shelf-life determinations must always be carried out on *completed packages* made on the production line, to be used in practice. Our methods of determining shelf life of various classes of product are clearly described in a series of articles by F. A. Paine, published in *Food* from September, 1955, to February, 1956. In the circumstances, therefore, we do not consider that the comparison between the two methods is relevant.

Yours faithfully,
G. MacDougall,
Deputy Director of Research,
Printing, Packaging and Allied
Trades Research Assn.

60% brighter* in **Kodapak Sheet**

"Kodapak" is a [redacted] trademark for Eastman's plastic sheet.

Battery jacket by the Flexible Packaging Division of the Continental Can Company for National Carbon Company, makers of "Eveready" Batteries.

Outshines them all: By actual light-meter test, the "Eveready" battery's new label-casing of metallized Kodapak is 60% brighter than conventional battery jackets: Little wonder it catches the shopper's eye!

Secret of this new casing is tough, transparent one-mil Kodapak, reverse-printed in color, then metallized and backed with fiberboard.

The result is a package with a *"come-hither"* look that's making cash registers ring up better and better sales everywhere.

Suggestion: Kodapak Sheet comes in a wide variety of widths and thicknesses for use in packaging and labeling. Uniform, physically and dimensionally stable, it is economical to process. For further information about how Kodapak "makes good products sell better"—just call our representative or write:

Cellulose Products Division, EASTMAN KODAK COMPANY, Rochester 4, N. Y.

Sales Offices: *New York, Chicago, Atlanta.* Sales Representatives: *Cleveland, Philadelphia, Providence.* Distributors: *San Francisco, Los Angeles, Portland, Seattle (Wilson & Geo. Meyer & Co.); Toronto, Montreal (Paper Sales, Ltd.).*

**than average of popular batteries tested.*

THE CASE FOR

NEW PLASTIC CONTAINERS BY WIRZ...

FOR COSMETICS • PHARMACEUTICALS • HOUSEHOLD AND INDUSTRIAL PRODUCTS

Lightweight, durable and conveniently flexible for easy dispensing . . . a handsomely styled new plastic container by Wirz can give an added dimension of sales appeal to your product. Container color, size, shape and decoration can match virtually any design idea. And Wirz specialists are prepared to work with you at every stage of container design.

Let a Wirz representative show you his case for new plastic containers by Wirz. Then discuss with him their many advantages for inventive–and profitable–merchandising of your products.

Another Development by America's Leading Producer of Collapsible Metal Tubes

A. H. WIRZ Inc.

4TH & COLE STREETS, CHESTER, PA.

ALSO RIGID CANS & IMPACT EXTRUSIONS—AMERICAN EXTRUSION DIVISION

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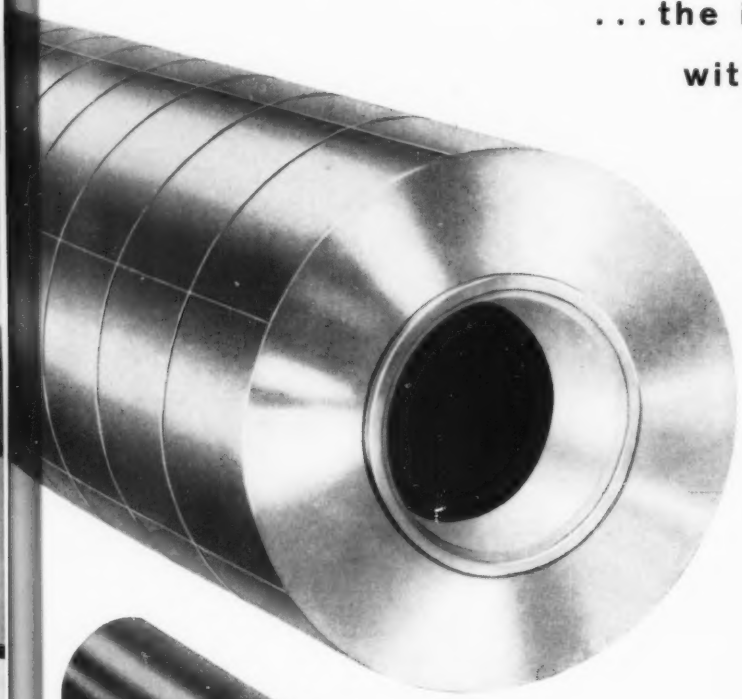
Saving money is only one of the advantages you get with

MOSSTYPE "D-MOUNT"®

. . . the integral plate cylinder with the removable shaft



Sure, you'll save money when you switch to "D-MOUNTS" (users report average 50% savings over previous costs for plate rolls). But that's only part of the story. You'll probably get better printing too, be able to run your press faster. You'll save time by keeping more jobs standing on inexpensive lightweight "D-MOUNT" sleeves. And you'll save valuable storage space too. In *hundreds* of plants, worldwide, "D-MOUNTS" have proved better than conventional integral-shaft cylinders, better than ordinary demountables. Why not get started on "D-MOUNTS" yourself and start enjoying their advantages? Complete details sent without obligation.

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Plants & People

O. W. Wikstrom, Jr. has been elected pres. and treas. of **U. S. Automatic Box Machinery Co.**, Boston. He succeeds **O. W. Wikstrom, Sr.**, who has retired from active service, but who will serve as chairman of the board. **Peter Nordstrom** is now v.p.

Albert B. Nichols, Jr., has been appointed gen. sales mgr. of the **Bradley-Sun Div.** of **American Can Co.**, New York. The div. operates plants in Hillside and Washington, N. J., and in Maynard, Mass. It produces a line of collapsible metal and plastic tubes, plastic squeeze bottles and other products. Succeeding Mr. Nichols as asst. gen. sales mgr. is **Harold M. Hansen**, formerly Philadelphia district sales manager.

Nichols

Leonard J. Gruber, for 29 years associated with **The Central Carton Co.**, Cincinnati, has been elected pres. and treas. of the company. He succeeds the late **Edward F. Geckle. Frank J. Bucher** has been elected exec. v.p. and also will serve as secy. The firm makes cartons and other packaging materials.

Acquisition of all design, manufacturing and sales rights to **Brown Filling Machine Co.**'s line of automatic packaging machinery has been announced by **Sundstrand Machine Tool Co.**, Rockford, Ill. The Brown filling machines will complement the Packmaster line of automatic packaging machines made by Sundstrand's **Sundstrand-American Broach Div.**, at Ann Arbor, Mich.

Oxford Paper Co., New York, has named **Delbert J. Morrison** to the newly created position of director of planning. In his new post, Mr. Morrison will be concerned with the formulation and integration of Oxford Paper's short- and long-range planning activities.

Robert J. Hlavin has been appointed mgr. of packaging products for **Lily-Tulip Cup Corp.**, New York. He joined Lily in 1951 as exec. asst. to the v.p. in charge of sales and was mgr. of the Midwestern region before his recent appointment. **D. Lee Mahon** has been named Central Midwestern regional mgr. He has been with Lily-Tulip since 1947. **Frank J. Demo** is now mgr. of the company's Syracuse div. He succeeds **Donald J. Arnold**, resigned.

Hlavin

Henry B. Bond has been elected pres. of **Richardson Taylor-Globe Corp.**, Cincinnati. He succeeds **Bayle M. Richardson**, who moves up to board chairman. Former board chairman **Herbert H. Stonebarger** retires after 50 years of service with the carton-supplying firm and its predecessor company.

Southern Gravure Service, Inc., Louisville, Ky., reports the election of **Thomas L. Shanesy** and **Edward J. Augustyn** to the posts of pres. and v.p. and gen. mgr., respectively.

Union Bag-Camp Paper Corp., New York, has purchased the majority of the stock of **Eastern Box Co.**, Baltimore. **George W. Wagner** will continue as pres. and the company will be operated under its present name as a sub. of the parent organization.

A re-assignment of plastic-div. execs. has been announced by **Spencer Chemical Co.**, Kansas City, Mo. **Edward L. Stevens** becomes gen. sales mgr., succeeding **William Schopflin**, now asst. to the v.p. **R. J. Bailey** has been appointed field sales mgr. with offices in Kansas City. He succeeds **Franklin E. Eck**, who has transferred to product mgr. for nylon. **C. J. Bridgen** succeeds Mr. Bailey as district sales mgr. in Chicago. **W. R. Claypoole** has been named polypropylene product manager.

Crown Cork & Seal Co., Inc. has appointed **Al B. Sheen** as mgr. of its Midwest region, with headquarters in Chicago. Mr. Sheen joined the company last year as mgr. of the export sales div.

Harold T. Shehan has been promoted to converter market mgr. for **Reynolds Metals Co.**, Richmond, Va. He succeeds **Glenn E. Carter**, who is now director of converter markets for the company. In his new job, Mr. Carter will direct sales in both converter and textile markets. Mr. Shehan had served as asst. mgr. of the converter market since 1957. **Ronald M. Ayer** has been appointed mgr. of Reynolds' newly created confectionery, drug and sundries packaging market, with headquarters in Richmond. **Gene Evans** has been named asst. mgr. of the company's meat and dairy packaging market.

Shehan *Carter*

The Film Dept. of **E. I. du Pont de Nemours & Co.**, Wilmington, Del., reports a major expansion of its Chestnut Run sales-development and customer-service laboratory, located near Wilmington. The project is expected to almost double present facilities for the development of new packaging films.

Paul D. Griem has been elected exec. v.p. of **Glass Containers Corp.**, sub. **Hunt Foods & Industries, Inc.**, Fullerton, Calif. **Edward D. Goldstein** was elected v.p. of the sub.

Three executives have been named to the post of v.p. by **Fibreboard Paper Products Corp.**, San Francisco. They are: **Mel R. Baruh, George W. Burgess** and **Jack H. Grady.** According to the company, Mr. Baruh, who has been with Fibreboard for 37 years, will now be active as a member of the national sales organization. Mr. Burgess becomes v.p. of mfg.; Mr. Grady is v.p. and gen. mgr. of the packaging group.

Frederick S. Leinbach has been elected president of the **Riegel Paper Corp.**, New York. He succeeds **John L. Riegel**, who has been both president and board chairman and continues as chairman. Executive vice president since 1957, Mr. Leinbach started with Riegel in 1934 as a chemical engineer for product development. He is a governor of the American Paper & Pulp Assn. and chairman of its Chemical Additives Committee and also of the Glassine & Greaseproof Assn.

Leinbach

A plant expansion that will double its research and development facilities for adhesives has been begun by **Polymer Industries**, Springdale, Conn.

National Starch & Chemical Corp. is the new corporate name of the former **National Starch Products, Inc.** The change, according to the company, reflects the increased importance of chemical products and processes in its business and does not imply a lessening of its activities as a producer of adhesives, starch products and specialties for the packaging and other fields.

John C. Cryan has assumed the post of gen. sales mgr. of **Fraser Paper, Ltd.**, Madawaska, Me. He will headquarter in Fraser's New York office. Also working out of New York is **Charles J. Rice**, newly named Eastern sales mgr. **Jack K. Barry**, new mgr. of merchant sales, will work with both Eastern and Western sales mgrs. Mr. Cryan, who joined Fraser in 1930, succeeds **James G. Conley**, who is retiring after 37 years in the paper industry.

Dr. J. H. Saunders becomes director of research for **Mobay Chemical Co.**, Pittsburgh. He succeeds **Dr. E. E. Hardy**, now with **Monsanto Chemical Co.**'s Plastics Div. in Springfield, Mass. Both Dr. Hardy and Dr. Saunders were formerly with Monsanto and joined Mobay shortly after it was formed in

Fresh onions packed in ice for shipment in M/R corrugated boxes—just one of many applications for this new H & D development.

STAYS STRONG WHEN WET!

It's *M/R*® moisture-resistant corrugated developed by H&D

No product's too wet for corrugated boxes made of M/R board. Wax-impregnated M/R sheds water like a duck's back, stays strong and firm even when dripping wet. Produce, fruit and other wet product packers save money with this new Hinde & Dauch development.

Looking for a better way to box your product? Better see H & D.

Hinde & Dauch
Division, West Virginia Pulp and Paper

AUTHORITY ON PACKAGING • SANDUSKY, OHIO
15 FACTORIES • 42 SALES OFFICES

HINDE & DAUCH
Division, West Virginia Pulp and Paper
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Please rush me samples and detailed literature on new M/R corrugated boxes.

Name_____

Company_____

Address_____

City_____ Zone____ State_____

No printing problems in producing this grease-proof carton for Chas. Pfizer & Co., Inc., New York, N. Y.—thanks to a simple switch to Lowe Paper Company's white clay coated boxboard, coated with 1 mil gluable PG POLYEON, using Spencer "Poly-Eth" Polyethlene (see story below).

How Spencer "Poly-Eth" Polyethylene* and Lowe's Special Treatment for Gluability Helped . . .

Solve Grease-Proof Package Problems Overnight

This actual case history offers 6 good reasons why polyethylene-coated board is earning a major place in the industry. The 2 minutes and 17 seconds it takes to read this page may give the answer to a major problem now troubling you:

E. J. TRUM, INC., of Brooklyn had a problem. They were running grease-proof cartons for Chas. Pfizer & Co., Inc., New York, N. Y., and the grease-proof paper they were using presented nothing but trouble.

It was hard to handle, difficult to score and caused so many problems in the printing presses it cut down productivity.

A call to Lowe Paper Company of Ridgefield, N. J., brought a sound recommendation: Switch to Lowe's .018 boxboard, backed with a coating of their specially treated polyethylene, known as PG POLYEON, using "Poly-Eth" Polyethylene manufactured by Spencer Chemical Company of Kansas City, Mo.

Test runs, made the next day, showed that this board offered five important advantages:

1 PG POLYEON board handled better than board laminated with grease-proof paper.

2 The uniformity of the sheet in caliper thickness was excellent, while the grease-proof laminated boards had varied so much they caused problems in the printing presses.

3 The PG POLYEON did not peel away on the presses or in the scoring.

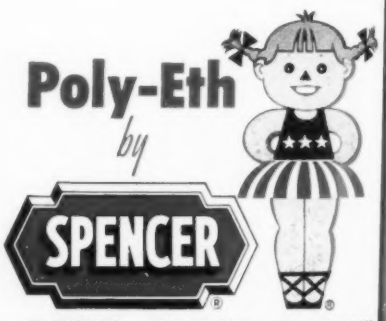
4 The troublesome curl, which had been prevalent with the grease-proof laminated board, was virtually eliminated.

5 There was no rupturing on the inside of the carton, as there had been with grease-proof laminated boards.

6 With all of these advantages, PG POLYEON board obviously would reduce down-time and increase productivity.

You, too, may discover that the special properties of Spencer "Poly-Eth" Polyethylene can be valuable to you. If you would like to know more, contact Spencer Chemical Company at the address below.

*Spencer Chemical Company manufactures "Poly-Eth" Polyethylene used in various Laminates. "Poly-Eth" is a registered trademark of Spencer Chemical Company.



SPENCER CHEMICAL COMPANY
Dwight Bldg., Kansas City 5, Mo.

Plants & People [*Cont'd*]

1954 as a joint project of Monsanto and Farbenfabriken-Bayer of Germany. The company makes urethane chemicals.

Price H. Gwynn, III, has been named v.p. of sales of **Package Products Co.,** Charlotte, N. C., designer and converter of flexible packaging materials. **Ralph**

Gwynn *Alexander* *Kester*

H. Alexander, Jr., has been appointed secy. of the company and Eastern district sales mgr. **Mel E. Kester** becomes asst. v.p. and director of design and art. Mr. Gwynn, who joined Package Products in 1947, served most recently as Eastern district sales mgr.

St. Regis Paper Co., New York, is negotiating to purchase the **Cupples-Hesse Corp.,** St. Louis, maker of shipping and merchandise tags and envelopes. St. Regis reports also that its sub., **Pollock Paper Corp.,** Dallas, has been merged into the company and established as a separate division.

Thatcher Glass Mfg. Co., New York, has formed a **Plastic Container Div.** According to pres. **William J. Green,** the new div., which will manufacture plastic bottles and tubes, is the outgrowth of Thatcher's recent purchases of **Plastic Tube & Bottle Co., Inc.,** and **The Celon Co.** Named to head up the new div., with the title of v.p., is **Henry E. Griffith,** founder of Plastic Tube & Bottle.

Neil A. Fowler, v.p. and director of sales and research for the **General Box Co.,** Des Plaines, Ill., has retired after 37 years of service. He will continue as a member of the board.

General Box has opened a new corrugated-box plant at Sheboygan, Wis.

Amaco, Inc., a new company specializing in processing and packaging machinery, has set up headquarters at 2601 W. Peterson Ave., Chicago 45. **Gerard Ziffer** is president.

Monroe

Newly elected pres. of **Custom-Pak, Inc.,** Cincinnati, is **James Monroe, Jr.** The company is a packer of jellies and condiments, put up in portion-control envelopes and cups made from cellophane, polyethylene and polystyrene for airlines, railroads and other institutional users.

Two new v.p.'s have been elected by **Aerosol Techniques, Inc.,** Bridgeport, Conn. They are **Samuel B. Prussin** and

the d-CON Company needed

MILLIONS

of RODENT BAIT STATIONS

no problem at all for PLAXALL

. . . quantities so large that if placed end to end the plastic trays would stretch from New York to beyond Chicago

PRECISION

Huge, continuous rolls of plastic material feed into high-speed equipment to automatically pressure-form, trim, and stack these trays with the precision and accuracy of metal stamping . . . each forming featuring girder-like cross bracing and precisely cut rolled edging to add strength and rigidity to the lightweight plastic.

LOW COST

Whether the quantity be measured in thousands or millions, PLAXALL'S automatic equipment coupled with more than 20 years of forming experience cuts prices to a fraction.

FAST

These 4¼ x 6 inch trays are produced at a rate upwards of 6,000 per hour per machine. When delivery speed is important, PLAXALL'S reliable, efficient high production facilities provide the answer.

For all types of formed products . . . Call or write

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ATTACHES HINGES
to set-up boxes
faster than ever!

NEW GEISSEL
motor-driven
ATTACHING
MACHINE

- Faster than current methods
- Cuts single hinges from 6-ft. strips
- Suitable for both wood and paper set-up boxes
- Saves time, cuts labor costs
- Safe operation

Send a box for free sample hinge attachment. Price and operating details on request.

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FLEX-O-FILM®
TOP QUALITY PLASTIC FILM

Specially Developed for:
SKIN PACKAGING
BLISTER PACK
VACUUM FORMING

FLEX-O-FILM "B"—Crystal Clear BUTYRATE
FLEX-O-FILM "V"—Crystal Clear FLEXIBLE Vinyl
FLEX-O-FILM "VR"—Crystal Clear RIGID Vinyl
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Plants & People [*Cont'd*]

Ethel F. Walsh. Mr. Prussin will direct all technical operations, including research and development, quality control, new products and sales development. Mrs. Walsh will supervise and coordinate production services, sales services and purchasing for the aerosol firm.

Glenn A. Tanner has been named sales mgr. of **Auto-Blow Corp.** **Millard Demarest** has been appointed to the same post of **Auto-Vac Co.** Both companies, located in Bridgeport, Conn., are subs. of **National Tool Co.** Auto-Blow manufactures blow-molding machines for thermoplastic materials and also provides development-engineering services in this field. Auto-Vac makes vacuum and pressure-forming equipment for thermoplastic materials.

Tanner *Demarest*

Lassiter Corp., Charlotte, N. C., has appointed **Charles T. Woollen** as v.p. in charge of its **Charlotte Carton Co.** div. Mr. Woollen has been coordinating sales and manufacturing at the carton plant.

A new research and development dept. has been organized by **Paper Converting Machine Co.,** Green Bay, Wis. **Charles Sanders** will head the new dept., which will direct the development of paper-converting machines and new principles applied to customer problems.

Kingdon R. Watt has been named mgr. of the adhesive pack dept. of **Fenwal, Inc.,** Ashland, Mass. He will be responsible for all sales and production functions. The company reports that Mr. Watt's appointment represents part of a corporate move to expand its activities in adhesive packaging.

Hy Farber and **J. Chris Smith** have combined their respective design organizations under the name of **J. Chris Smith Design Associates** at 1512 N. Las Palmas, Hollywood, Calif.

Stone Container Corp., Chicago, has started a new production line for moistureproofing corrugated shipping boxes. The new installation at Stone's Eastern div. plant in Philadelphia reportedly can produce 25 million treated containers annually.

Operations have begun at the new Joliet, Ill., corrugated-container plant of **Olin Mathieson Chemical Corp.,** New York. Plant capacity is 45 million square feet of corrugated board a month.

British Cellophane, Ltd., London, England, has formed a plastic films div. under which will be grouped the manufacture and marketing of films other than cellophane. **J. Schwartz,** who has been with the company since its inception in 1935, has been appointed

Look to U.S. for Every Liquid Filling Need!

Decades of liquid filling know-how, enables U. S. engineers to custom-engineer your filler to spark your packaging pace. U. S. basic machines cover a wide range of fully automatic, semi-automatic and hand fillers. Bulletins available on all machines.

Without obligating yourself in any way, write for recommendations. Please specify: Product; size and type containers; desired filling rate per minute, hour or day.

A MODEL B-2 VACUUM FILLER. Two containers always filling. Vacuum adjustable. Flow regulated. Stainless steel contact parts, plastic on order. For containers up to 4⅛" dia. Request "Bulletin B-2".

B MODEL B-49 STRAIGHTLINE VACUUM FILLER. Standard machine has 9 filling heads. Adjustable for container size changes, miniatures to gallons. All contact parts stainless steel or plastic on order. Available with or without discharge conveyor. Request "Bulletin B-49".

C U. S. SIPHON FILLER. Adjustable for all containers, all liquids including foamy products or products that do not permit agitation. Stainless steel tubes; glass lined tank. Request "Siphon Bulletin".

✓ *AIR BOTTLE CLEANER. Semi-automatic. Companion unit to semi-automatic fillers. Air cleans up to 40 containers per minute. Request "E-Z Bulletin."*

U. S. BOTTLERS MACHINERY CO.
4017 N. ROCKWELL ST., CHICAGO 18, ILLINOIS
BOSTON • NEW YORK • PHILADELPHIA • LOS ANGELES • SAN FRANCISCO • SEATTLE
DENVER • PORTLAND, ORE. • OGDEN • KANSAS CITY • TUCSON • JACKSON, MISS. • ATLANTA
MONTREAL • TORONTO • VANCOUVER • WINNIPEG • SANTIAGO • SAO PAULO • HONOLULU

Transfer Fluids Fast
— LIKE GAS IS PUT IN YOUR CAR!

THE NAME IS FAST-FLO! It's Graco's light-weight air-powered pump that transfers fluids fast, "direct-from-drum"!

Just stick the Fast-Flo in the drum, attach plant air line. Open gasoline type valve at end of hose to start pump. Close valve, and pump stops. One-man operation, with absolute control *at the valve*.

Safest operation possible! No motor burnouts or sparking! No danger in hazardous atmospheres! No pressure built up inside the drum!

For the fastest dispensing and transferring you've ever experienced, find out about Graco Fast-Flo Pumps. WRITE FOR NEW IDEA BOOKLET!

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GRACO *Fast-Flo* "DIRECT-FROM-DRUM" PUMPS
GRAY COMPANY, INC. • *Engineers and Manufacturers*
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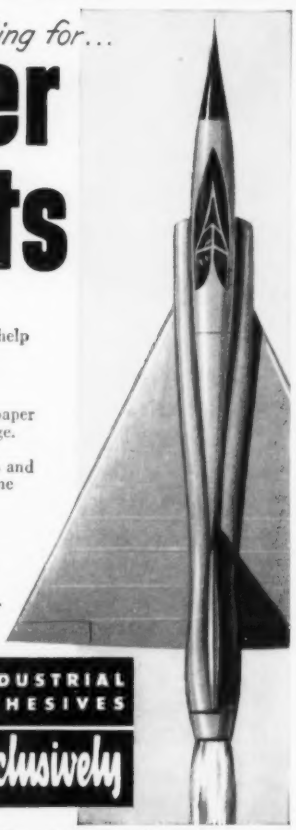
FACTORY BRANCHES: *New York (Long Island City) • Philadelphia • Detroit Chicago • Atlanta • Houston • San Francisco*

looking for...

higher profits



Sometimes use of a *more expensive* adhesive can help you to more profits by reducing production costs.

Findley high speed resin adhesives for packaging and paper converting give greater mileage. Handle many stocks without changeover. Eliminate rejects and reworking. Permit top machine speeds. Save you money!

For proof let our specialists fill you in on the details and samples; and show you how to...

put more PROFIT IN your production with

Findley's INDUSTRIAL ADHESIVES *exclusively*

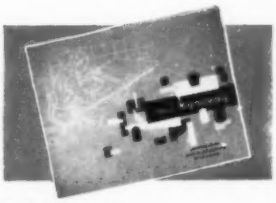
Dept. MP, Milwaukee 45, Wisconsin

Kennedy
PROTECTIVE PACKAGING
Sells

Kennedy's Kraft, Krinkle Kraft, colored or white paper, or plastic film or foil protective packaging becomes a silent salesman when printed with trademarks, instructions, or sales messages. Designed, fabricated and printed in our own plants, Kennedy protective packaging *sells* the product it protects. Let a Kennedy Sales Engineer help you protect and sell *your* product.

Kennedy

"This is Kennedy"—a 16-page illustrated free brochure, will show what we've done for others—and can do for you. Ask for a copy today.



KENNEDY CAR LINER AND BAG CO., INC.
3000 Prospect Ave., Dept F, Shelbyville, Indiana
Offices in most principal cities. See the yellow pages in your phone book.

Plants & People [*Cont'd*]

mgr. of the new div. **D. F. Drew** has been named sales manager.

Walter Peterson, v.p. and gen. sales mgr. of **American Tag Co.,** Chicago, last month began his 51st year of service with the company. He joined American Tag in 1909 as a salesman.

Benchley

Einson-Freeman Co., lithographing firm of Long Island City, N. Y., has appointed **Robert Benchley, Jr.,** as v.p. and sales mgr. He will continue his duties as chairman of the creative plans board. In his new position, Mr. Benchley will coordinate activities of the sales and creative departments into a fully integrated merchandising service.

Cawley-Neff Associates is the name of a new package-design firm located at 3 Penn Center Plaza, Philadelphia. Its officers are: **C. Robert Cawley,** pres. and treas., and **J. Warren Neff,** v.p. and secretary.

Warwick Wax Co., sub Sun Chemical Corp., has been purchased by **Western Petrochemical Corp.,** a new company located in New York. **Maurycy Bloch,** pres. of Western Petrochemical, reports that Warwick (a producer of specialty packaging waxes) will be operated as a division.

Spencer Chemical Co., Kansas City, has begun a "substantial" expansion of its polyethylene-producting plant at Orange, Tex.

Sterling Extruder Corp. is a new company that will manufacture extrusion machinery for the plastics industry. Its pres. is **L. D. Yokana.** Location is at 1112 Baltimore Ave., Linden, N.J.

As part of a $5,000,000 expansion program by **American Can Co. of Canada, Ltd.,** a new coil-processing center is being constructed in Hamilton, Ont. The facility will process all the tinplate used in the company's five Canadian container plants.

Eureka Specialty Printing Co., Scranton, Pa., has purchased **Mark Andy, Inc.,** St. Louis, manufacturer of pressure-sensitive labels and tapes.

Crown Cork & Seal Co., Philadelphia, is constructing a $7,000,000 can and crown manufacturing plant in Atlanta.

Hudson Sharp Machine Co., Green Bay, Wis., has transferred its New York offices to 161 E. 42 St.

The **Ajax Box Div.** of **St. Regis Paper Co.,** located in Chicago, will construct a new corrugated-box plant in Bridgeview, Ill.

A new gum and technical products dept., which unifies the operations of two previously separate groups, has been set up by **Morningstar-Paisley, Inc.,** New

Pickles **look** so good in glass . . .

and **taste** so good . . .

Duraglas containers are available in a full range of sizes. Shown here are a pint refrigerator jar No. C-4091 and a quart jar No. C-4595.

Guard the precious **flavor** of your delicious pickles by packaging them in Duraglas® Jars

Sparkling glass containers are airtight and moisture-proof . . . so that nothing gets in and none of the wonderful flavor and aroma gets out. And clean, clear Duraglas containers constantly display their colorful contents.

Duraglas containers that safeguard pickles and hundreds of other fine products are made by Owens-Illinois. Their development reflects the same forward-looking imagination and research that goes into all Owens-Illinois products.

So look to Owens-Illinois for the finest in complete glass packaging—the right containers for your products, metal or plastic closures, fitments, label designs and shipping cartons imprinted with your sales message. Call today.

DURAGLAS CONTAINERS
AN (O) PRODUCT

OWENS-ILLINOIS
GENERAL OFFICES · TOLEDO 1, OHIO

NABISCO's Unique, Sparkling, Eye-catching Cookie Bag is made of NIBROC® WHITE

Today's fastest growing packaging paper engineered for tomorrow's uses

More and more producers of products ranging from Bakery Goods to Plant Foods to Briquets are packaging their products in paper—and the top choice of converters and end-product users alike is Nibroc White.

Strong, bright Nibroc White prints beautifully . . . handles superbly on forming, filling and closing machinery. Available in super-calendered and or embossed finish.

Discover for yourself why so many of America's "Brand Name" products are packaged in Nibroc White. Write for samples and complete information to our Paper Sales Division, Department RD-6, Boston, Massachusetts.

Another Quality Product of BROWN COMPANY

General Sales Office: 150 Causeway St., Boston 14, Mass. • *Mills:* Berlin and Gorham, N. H.

York. Gen. mgr. of the new dept. is Thomas W. Morningstar; sales mgr. is Mark P. Malkovitch.

The company reports also that the production of polyvinyl acetate emulsions (for use in adhesives formulations) has begun at its new Clifton, N.J., plant and that emulsion output at the Chicago plant has been increased 50%.

Colt "Rite-Size" corrugated box machinery and auxiliary equipment are now being sold and serviced by Colt Packaging Machinery Co., Cranston, R. I. The newly formed company has purchased the assets of the former box machinery and equipment div. of Colt's Plastics Co., Hartford.

Container Laboratories, Inc., Chicago package-consultant firm, has named James A. Sergeant as its new pres. He succeeds Allyn C. Beardsell, who has been elected v.p. and gen. mgr., with headquarters in New York. Mr. Sergeant and other employees recently purchased controlling interest in Container Laboratories from Albert Luhrs (exec. mgr. of the Fibre Box Assn.), who started the business in 1923. Other new officers elected by the company are: Jerome J. Kipnees, v.p. and mgr. of the New York and Philadelphia divs. and Thomas P. Wharton, v.p. and mgr. of the Washington, D.C., office.

Sergeant

Vacuum Metalizing Corp., plastics metalizing, has moved into new quarters at 187-10 Jamaica Ave., Hollis, N.Y. With the addition of new equipment and facilities, the company now offers complete molding and metalizing service.

West Virginia Pulp & Paper Co., New York, is opening sales offices in London and Havana.

A new plastic-bag plant is being built at Union City, Calif., by Bemis Bro. Bag Co., St. Louis. It will have facilities for the extrusion of polyethylene liners and the manufacture of plain and printed polyethylene bags.

The new product development div. of The Mead Corp., Dayton, O., has moved into new quarters near Cincinnati. The purpose of the div. is to find new uses for paperboard and combinations of paperboard and other materials.

E. R. Brooks, v.p. in charge of mfg., has been promoted to special asst. to the pres., Mead-Atlanta Paper Co., Atlanta. Rutledge Bermingham, Jr., becomes gen. mgr. of the company's Packaging Div. in Memphis.

Sampson W. Yates has been named v.p. in charge of production of Robertson Paper Box Co., Montville, Conn. For the past nine years, Mr. Yates has been production mgr. for the folding-carton

[*Continued on page 156*]

HIGH SPEED LOWEST COST

FILLMASTER

vibratory filler

"Vibratory for weight accuracy"

for dry, semi-dry, free-flowing or slow-flowing products

Here's a filling machine that gives you everything: up to 60 bags, cartons or packages a minute, from gram fractions to 10 pounds. Precise weight accuracy is assured by the exclusive Fillmaster vibratory action. Nuts, candy, popcorn, etc.—even the most delicate product is handled with ease, without damaging or bruising.

You can change from one product to another and from one container size to another in minutes. And, the Fillmaster is so easy to operate, that even an inexperienced operator will get full production.

High priced? No, the low cost for a machine of this caliber will surprise you. Get the facts today . . . write for literature and prices

Ask us about our automatic fillers also.

STUYVESANT ENGINEERING COMPANY

107 Stuyvesant Avenue, Lyndhurst, N. J.

For screen process printing

we have the machine you need

Units for all types and sizes of containers—from vials to 55-gallon drums. Dependable Machines print on plastic, glass, ceramics, metal, etc.

Units for flat printing on circuits, dials, flat bottles and F-style cans. Units for conical shaped objects. Write today for full details.

SILK SCREEN DIVISION

Dependable Compressor & Machine Co. Inc.

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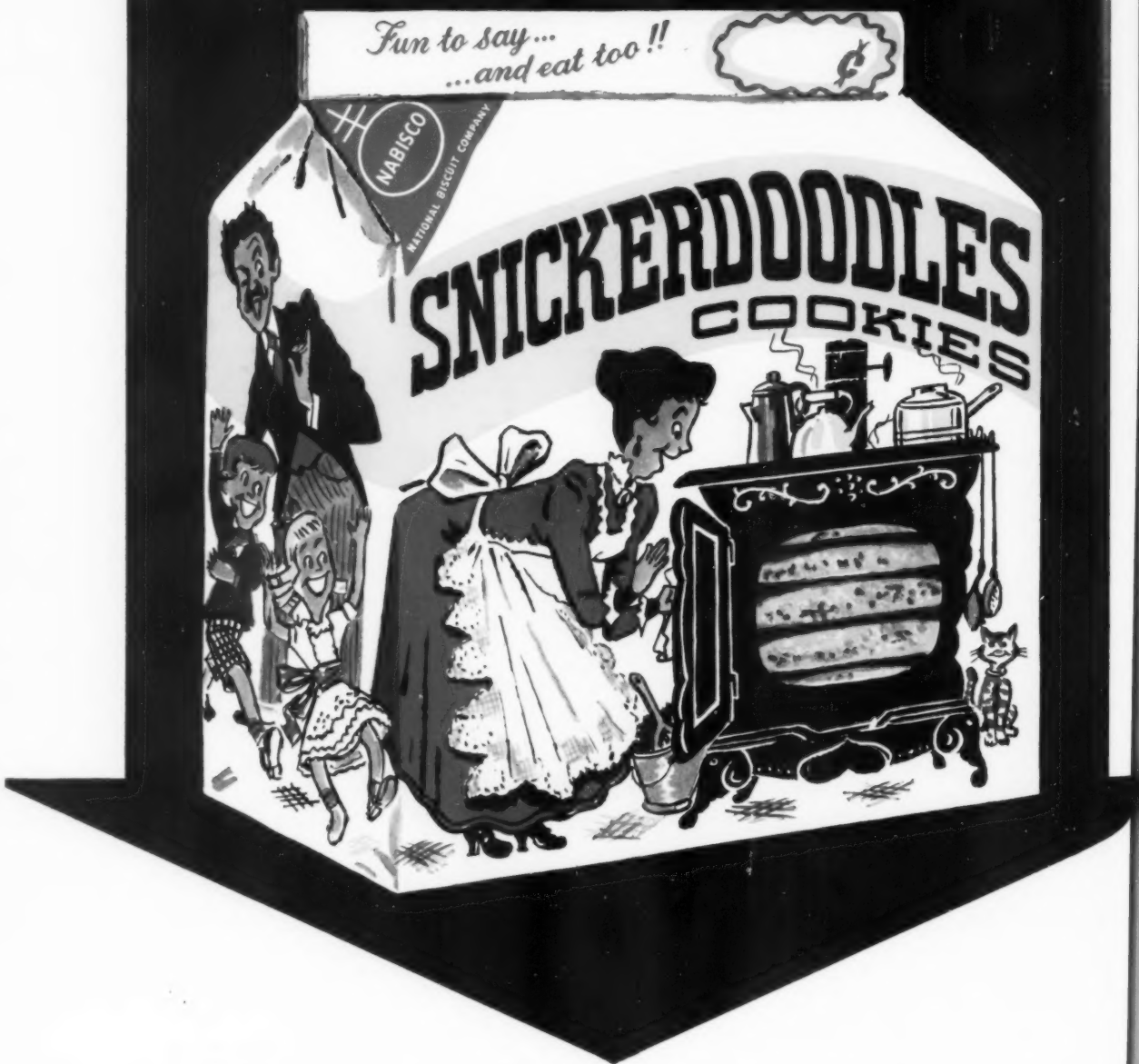
NABISCO's Unique, Sparkling, Eye-catching Cookie Bag is made of NIBROC® WHITE



Today's fastest growing packaging paper engineered for tomorrow's uses

More and more producers of products ranging from Bakery Goods to Plant Foods to Briquets are packaging their products in paper—and the top choice of converters and end-product users alike is Nibroc White.

Strong, bright Nibroc White prints beautifully . . . handles superbly on forming, filling and closing machinery. Available in super-calendered and/or embossed finish.

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[Continued on page 156]

HIGH SPEED LOWEST COST

FILLMASTER
vibratory filler
"Vibratory for weight accuracy"

for dry, semi-dry, free-flowing or slow-flowing products

Here's a filling machine that gives you everything: up to 60 bags, cartons or packages a minute, from gram fractions to 10 pounds. Precise weight accuracy is assured by the exclusive Fillmaster vibratory action. Nuts, candy, popcorn, etc.—even the most delicate product is handled with ease, without damaging or bruising.

You can change from one product to another and from one container size to another in minutes. And, the Fillmaster is so easy to operate, that even an inexperienced operator will get full production.

High priced? No, the low cost for a machine of this caliber will surprise you. Get the facts today . . . write for literature and prices

Ask us about our automatic fillers also.

STUYVESANT
ENGINEERING COMPANY
107 Stuyvesant Avenue, Lyndhurst, N. J.

For screen process printing
we have the machine you need

Units for all types and sizes of containers—from vials to 55-gallon drums. Dependable Machines print on plastic, glass, ceramics, metal, etc.

Units for flat printing on circuits, dials, flat bottles and F-style cans. Units for conical shaped objects. Write today for full details.

SILK SCREEN DIVISION
Dependable Compressor & Machine Co. Inc.
157 W. 21st St., New York 11, N. Y. • CHelsea 3-6717

FAVORED IN THE PACKAGING OF COSMETICS

In drug, industrial and household product packaging, too.

SHEFFIELD TUBES

THE SHEFFIELD TUBE CORPORATION

Home Offices: New London, Conn.

Sales Offices: New York, Chicago, Los Angeles

Beauty deserves the best

That's why leading cosmetic

manufacturers select

Sheffield Tubes. For here is

the smarter appearance

ease of use and proven

reliability that give women

the irresistible urge to buy

Sheffield Tubes

RESiNA
CAPPERS

a model for every purpose . . . a speed for every need!

NEW! INNERSEALER

RESiNA

Automatic innerseal machine for selecting and applying standard innerseals to various types and sizes of tin cans as commonly used in the oil industry.
Capacity: 60-120 per minute
Seals from ⅜" to 1½".

AND SPECIAL MACHINERY

Agents in principal cities throughout the United States and Canada.

Write for descriptive literature

RESiNA

AUTOMATIC MACHINERY CO., INC.

Brooklyn 31, New York

Plants & People

[*Continued from page 153*]

manufacturer. He is a member of the **Technical Assn. of the Pulp & Paper Industry. Richard G. Wallis**, v.p. and asst. to the pres., has been elected a board member.

New Era Mfg. Co. recently opened a new plant and offices at Central & Forest Avenues in Hawthorne, N. J. New Era makes a multicolor flat-bed letterpress. The new facilities will also be used for the production of the stringing and wiring machines made by New Era's div., **Graeber Stringing & Wiring Machine Co.**

Celluplastic Corp. has moved its sales and executive offices to Federal Trust Bldg., 24 Commerce St., Newark, N. J.

Globe Envelope Mfg. Co. is now located at 1632 Venice Blvd., Los Angeles. The company manufactures envelopes and greaseproof bags.

Promotions

Randall L. Jones: to sales mgr., packers' cans, **Eastern Metal Div., Continental Can Co.**, New York. **T. J. Hughes**: to sales mgr., same div., Paterson, N.J., office. **W. H. Palmer** succeeds Mr. Jones as district sales mgr. in Baltimore.

R. W. Phelps: to mgr. of engineering and product development, **The Black-Clawson, Co., Dilts Div.**, Fulton, N. Y. **Jack Dain**: to asst. sales mgr.

Jaek Millman: to mgr., new technical service dept., **S & C Corrugated Paper Machinery Co.**, Brooklyn. **Richard Lane**: to regional mgr., Central area.

Bernard W. Recknagel: to v.p., **St. Regis Paper Co.**, New York.

Melvin R. Whitman: to Northwest district sales mgr., Canning Machinery Div., **Food Machinery & Chemical Corp.**, San José, Calif.

Amory Smith: to Atlanta sales mgr., **Avery Label Co.**, Monrovia, Calif.

N. M. Skinner: to sales mgr., Southwestern U. S., **Continental Can Co.**, Paper Container Div., New York.

C. Townshend Fugitt: to sales mgr., packaging products, Pacific Region, **Lily-Tulip Cup Corp.**, New York. **John A. Hickey** succeeds him as mgr. of the San Francisco Div.

Paul N. Donnelly: to mgr., container products, Western Div., **Dewey & Almy Chemical Div., W. R. Grace & Co.**, Cambridge, Mass.

Lawrence V. Stapleton: to exec. v.p., **Lippincott & Margulies, Inc.**, New York. He was formerly gen. mgr. and director of marketing for the package-design firm.

Gordon D. Russell: to advtg. mgr., **Switzer Bros., Inc.**, Cleveland. The

Sold – and Still Selling

This Mullinix package "billboards" Morrell Pride bacon at the point of sale. The unique "Peek-A-Boo®" flap protects bacon from damaging light rays and keeps it looking fresher . . . better.

But, this package keeps right on selling in the home. It takes up less space in the refrigerator and is easy to open and re-close without mess. The bacon is protected at all times and . . . because of this, the last slice tastes as good and fresh as the first.

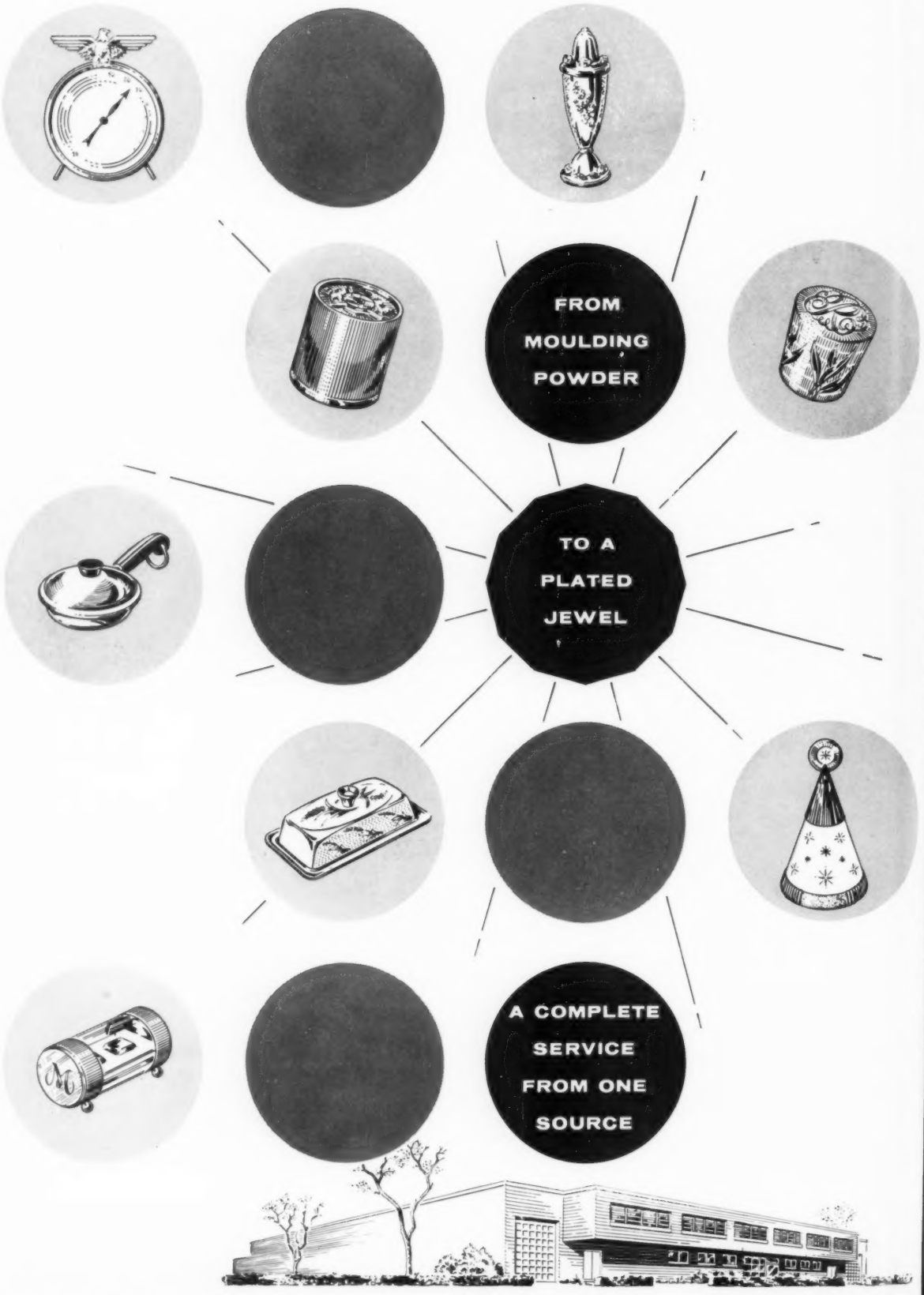
Increased Sales . . . by Design!

The patented Mullinix package is another Western-Waxide flexible packaging development. Our packaging research laboratories, combined with excellent graphic arts facilities can develop, create and produce a package that will *sell and keep right on selling* for you.

CROWN ZELLERBACH **WESTERN-WAXIDE DIVISION**

Headquarters Office: 2101 Williams St., San Leandro, Calif. • Plants and Sales Service Offices in Principal Cities of the United States

Manufacturers and converters of plain and printed waxed paper • foil • foil laminates • polyethylene coated paper and poly-film laminates • films • bags • pouches and other specialized flexible packaging materials ©



VACUUM METALIZING CORPORATION, 187-10 Jamaica Avenue, Hollis 23, New York • AXtel 7-4646

VERSATILE PACKAGING With MASS SALES APPEAL

Mass Produced by

PLASTIC ARTISANS, Inc.

The photos show the dual-use versatility of PA's sales-exciting packaging. In two cases, WEAREVER* applied the same product-fitting dome, (mass-produced from the same die) to two different packages. These double-duty performances help to reduce costs and simplify inventory.

Use Plastic Artisans' experienced packaging knowledge to help improve your sales. Send for PA's guide to formed plastic "Display Packaging" or ask to have a representative call.

David Kahn, Inc. uses the same Plastic Artisans' DOMEPAK to serve two different WEAREVER® put-ups.

*DAVID KAHN, INC. Mfr's. of WEAREVER® Pens & Mech. Pencils

PLASTIC ARTISANS, INC.
Dock St. & Martin Pl.
Port Chester, New York

PA

Custom-designed, mass produced packages, package components, sampling devices, etc. in clear, opaque and colored plastics.

Plants & People [*Cont'd*]

company makes Day-Glo fluorescent paints, pigments and inks.

Charles G. Gardner: to member, board of directors, **Sterling Seal Co.**, Erie, Pa. Mr. Gardner continues as v.p. of Eastern sales in New York City.

Lamson M. Scovill: to Eastern district sales mgr.; **John H. Gelwicks:** to Western district sales mgr., both **Scovill Mfg. Co.**, Cosmetic Container Div., Waterbury, Conn.

Robert T. Seith: to asst. sales mgr., **Mosinee Paper Mills**, Mosinee, Wis.

Del Schmidt: to v.p., **Donrico, Inc.**, New York, package designer and printer.

Appointments

Merrill A. Becht: from **Athol Mfg. Co.**, to tech. director, **Arvey Corp.**, Chicago. The firm makes flexible window materials, laminated flexible packaging and industrial laminates.

Donald F. Loughrey: to gen. mgr., **Commerce Packaging Corp.**, Stamford, Conn.

Vincent P. Petrucelli: to gen. mgr., **The Butterfield-Barry Co.**, Teterboro, N. J., paperboard-products supplier.

George M. Gilder: to design director, **Alan Berni & Associates**, New York.

Oscar A. Mockridge, Jr.: to sales mgr., New York, **Ertel Engineering Corp.**, Kingston, N. Y. The firm produces a line of liquid-handling equipment.

Joseph T. Piemonte: to Richmond, Va., regional sales mgr. of corrugated-paper products, **Hinde & Dauch Div., West Virginia Pulp & Paper**, Sandusky, O.

Richard Costello: to asst. sales mgr., **Kehr Products Co.**, flexible packaging, Philadelphia.

Obituaries

J. J. Hallowell, pres. of **The Wrenn Paper Co.**, died on March 20. He was 68. He had been associated with Wrenn Paper for more than 50 years. The company, a sub. of **The Mead Corp.**, specializes in saturating papers used in the laminating plastics industry.

Howard J. Lacy, II, pres. of the **U. S. Corrugated-Fibre Box Co.**, and a director of **Knox Glass, Inc.**, is dead at the age of 53.

Homer Lake, retired sales exec. of **Gilman Paper Co.**, New York, died March 17. He had been active in the paper industry for more than 50 years.

Bert R. Van Slyck, Portland, Ore., branch mgr. of the Canning Machinery Div. of **Food Machinery & Chemical Corp.**, died March 23. Mr. Van Slyck joined FMC in 1943.

GIVE YOUR Sales Promotion A LIFT!

Supplement your sales effort with "selling" design and printing on your shipping containers* . . . oops, pardon our slip, in today's market it's the OUTER PACKAGE.

Remember, on your *travelling billboards, the space is FREE!

Write for free brochure about practical planning for corrugated box printing.

JAS. H. MATTHEWS & CO.
Established in 1850
BOX PRINTING DIES
7 plants / Boston • Chicago • Clifton Jacksonville • Philadelphia • Pittsburgh St. Louis (RUB-R Eng. Co.)

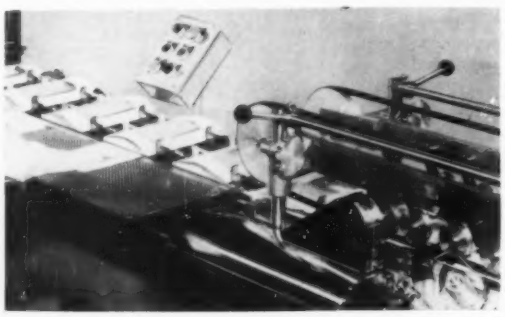
Equipment & Materials

[*Continued from page 66*]

and positive feed of a smooth, pattern-free coating. The new press section has an open-frame construction for fast and easy roll removal, heavy-duty bearings, an air-loading system, mechanical means for controlling accurate nip settings, and chrome-plated rolls. Doctors for cleaning rolls are available. *The Black-Clawson Co., Dilts Div., Fulton, N.Y.*

New bacon carton and packaging machine

New from Lynch Corp. is a machine for packaging bacon in a folding carton with slide-out tray. It was developed in cooperation with Marathon, Div. American Can Co. The reclosable rectangular carton, which has a transparent-film window in its top panel for product visibility, is set up



automatically by the machine. The tray portion then is filled manually (at a reported rate of up to 50 cartons per minute) and replaced into the carton. The filled cartons then continue their travel through the machine for automatic sealing and date coding. The supplier points out that the new bacon carton solves the problem of in-home storage of unused portions of the pack and also benefits retailers because of its uniformity in size, its stackability and its protection of the product against handling damage. *Lynch Corp., Anderson, Ind.*

Metalized polyester-film tapes

Four new additions to its 850 line of metalized polyester-film tapes are reported by Minnesota Mining. The new tapes come in burgundy red, emerald green, royal blue and copper colors. Their properties include long aging and permanent bonding, says the company. Among the applications suggested for the tapes are: decorative stripping, labeling, sealing, protecting, coding, identifying, edging, die-cutting, holding, embossing, debossing and masking. *Minnesota Mining & Mfg. Co., 900 Bush Ave., St. Paul 6.*

Low-cost gold color for applied labeling

A baked-on, textured metallic color resembling gold—designed for use in pre-applied labeling of bottles—has been developed by Hazel-Atlas. The new, lustrous, synthetic color is reported to cost no more than conventional ceramic colors applied to glass containers. *Continental Can Co., Hazel-Atlas Glass Div., Wheeling, W. Va.*

Multi-purpose resin adhesive

Morningstar-Paisley says its new Solu-Rez series of polyvinyl-acetate-resin adhesives offer a number of advantages in packaging applications, which include: (1) suitability on most carton-sealing and forming equipment at high production-line speeds, (2) strong bonds on a wide range of carton surfaces, (3) no significant viscosity build-up under constant agitation, (4) elimination of non-reversible skinning, (5) low viscosity and good spreadability and (6) easy washability of machine parts and reservoirs. *Morningstar-Paisley, Inc., 630 W. 51 St., New York 19.*

Impressed arrow points spray direction

An aerosol spray button that incorporates an impressed arrow in a second color, so that the direction of spray flow can be seen instantly by the user, has been developed by Precision Valve. The imprinted arrow is designed to eliminate the problem of wrong-direction spraying of paints, cosmetics and other aerosol-packaged products. According to the supplier, impressing and coloring of the arrow is an integral part of a patented molding operation and therefore can be made available to packagers at practically no increase in cost over conventional spray buttons. *Precision Valve Corp., 700 Nepperhan Ave., Yonkers 3, N.Y.*

Attachments for ice-cream packaging

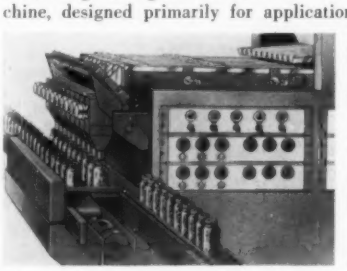
Now available are three special attachments which are claimed to effect trouble-free packaging in ice-cream cartons, no matter what board caliper or finish is used. Developed jointly by Marathon, Div. American Can Co., and by Anderson Bros., the attachments are: (1) adjustable way posts for running a variation of finishes and calipers; (2) a hopper-gap adjuster designed to compensate for variation in the caliper of finishes, and (3) modified slicer fingers for the constant removal of wax build-up when running cartons. *Anderson Bros. Mfg. Co., Rockford, Ill.*

Conversion kit for polyethylene-tube sealing

A polyethylene-tube sealing and coding conversion kit is offered by Colton. The supplier reports that the low-cost unit can be installed in the standard Colton tube filler, Model 17 or 175, to replace the original-equipment folding and crimping heads for metal tubes. The conversion unit is reported to fill and seal 50 tubes per minute. *The Arthur Colton Co., 3400 E. Lafayette Ave., Detroit 7.*

High-speed tablet counter

Delta Engineering's new Model E universal counting machine, designed primarily for application by packagers in the pharmaceutical field, is reported to accommodate up to 12,000 bottles of 100 tablets or capsules per hour. It can handle the complete range of irregular- or regular-shaped compressed and coated tablets, the supplier says. The new unit is available with two to 10 orientation channels, depending on production rate desired. Each channel is equipped with its own feeder, flow divider, detector and electronic controls. Count per bottle can be preset by turning a dial on the machine's instrument panel. *Delta Engineering Corp., Melrose, Mass.*



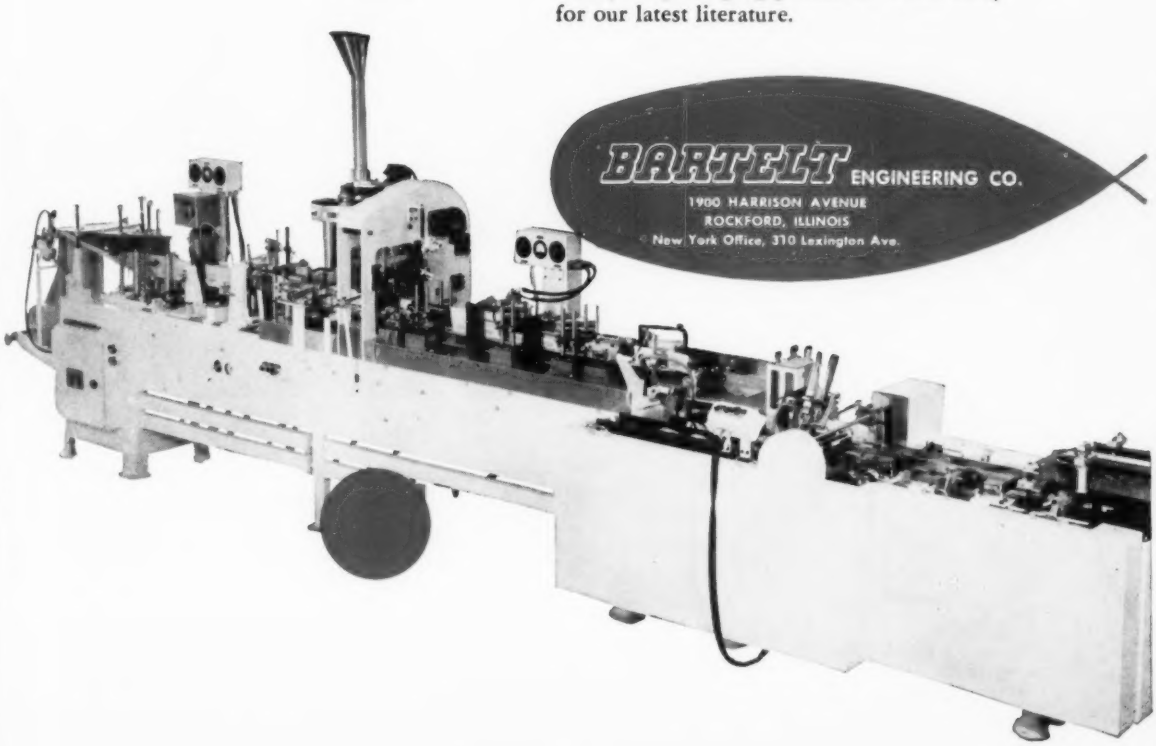
Pressure-sensitive saran packaging tape

A pressure-sensitive packaging tape with a smooth, 2-mil backing of saran is offered by Permacel. According to the supplier, the excellent low-temperature properties of the saran backing and a specially formulated translucent adhe-

[*Continued on page 162*]

MACHINES *for Creative Packaging"*

Modern marketing methods have demanded distinctive as well as utilitarian packages. Bartelt Automatic packaging equipment has always met these needs. A variety of pouches . . . gussetted bottom, multiple compartment, or fin seal, to mention a few . . . may be produced from any material that can be heat sealed. Carton sizes can vary widely and can be set to contain from one to four pouches each. Versatile automatic machinery can give you a package with real sales advantage, and save you money. A few of the great variety of packages that have been run on Bartelt lines are shown. Let us help you with your packaging problems. Write today for our latest literature.



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itw 20,000,000 CUPS VENDED IN 50 CITIES PROVE SUPERIORITY OF NEW, PATENTED

Consumers love these new cups because they deliver
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PRECISION ENGINEERED MASS PRODUCTION

sive make the tape ideal for use by packagers of frozen foods. Called Permacel 331, the tape also is reported to have good resistance to oil, water, gasoline, chemicals and weather exposure. *Permacel, New Brunswick, N.J.*

Tear-tape-opening multiwall bag

A tear tape that permits fast, easy opening of pasted-valve multiwall bags has been introduced by Union Bag. Called Unistrip, it is a flat, 5/32-in.-wide tape held in place in the

valve of the bag by a quick-drying adhesive. A tug on the tape not only opens the bag cleanly, but also creates a convenient pouring spout. The length of the strip has been standardized at 6 in., but it can be furnished in lengths up to 10 in., the supplier says. *Union Bag-Camp Paper Corp., 233 Broadway, New York 7.*

Power-driven case marker

Kiwi Coders' new Model 4296 is a power-driven case-printing machine that handles knocked-down cartons (ranging in size from 6 by 10 in. to 32 by 44 in.) at reported speeds of 25 to 50 units per minute. Features of the new unit are an automatic counting attachment and automatic centering of cartons for precise registration. Type can be changed rapidly for differing requirements. The supplier reports that its coder can be built to individual specifications. *Kiwi Coders Corp., 4027 N. Kedzie Ave., Chicago 18.*

Dry offset printing on metal cans

National Can reports that it will now print metal cans by dry offset on special order. The company says that dry offset, which is reported to print richer colors than the conventional wet process, saves the cost of an additional pass through the lithography line because of its ability to apply up to 40% more pigment in one pass. *National Can Corp., 3217 W. 47 Pl., Chicago 32.*

New attachment for printer-slotters

Designed for use in the shipping-container manufacturing industry is a new J. M. Huber attachment for installation in the printing cylinders of existing printer-slotter machines. Called the Dorr Rapi-Die Register, it reportedly provides a fast, accurate method of fastening pre-mounted dies without stapling, for improved die registration and reduced downtime. It also is claimed to make possible the use of a new type of removable die-backing. The supplier reports that the downtime savings achieved by the attachment on a two-color printer-slotter will amortize its initial cost in approximately a period of six months. *J. M. Huber Corp., Ink Div., Hillside, N.J.*

Automatic power-strapping machines

Signode Steel Strapping has introduced its new Model M20 series of fully automatic power-strapping machines. The new machines can accommodate all sizes of containers and operate at strapping speeds of up to 196 ft. per minute, the company reports. Other cited characteristics include: machine mounting in any position; no limitations on shape, size and firmness of the packages to be strapped; no adjustments except tension adjustment are required, and minimum maintenance requirements. *Signode Steel Strapping Co., 2600 N. Western Ave., Chicago 47.*

Improved laminated glassine

Hamersley Mfg. reports that it has developed a new and improved laminated glassine that offers superior moisture protection for foods in bags and liners. According to the company, the laminated glassine, surface-coated with special heat-sealing waxes, is ideal for the unit packaging of crackers, cookies and similar products. The material is claimed to be available to high-speed, automatic packaging operations. *Hamersley Mfg. Co., Garfield, N.J.*

Improvements in rewinding machine

Increased production speeds and versatility are the results of new improvements in its Type XP rewinding machine, says Schultz Engineering. It reportedly will produce up to 40 completely finished rolls of foil and cellophane, as well as waxed, coated or other papers. Core-size range has been increased more than 25%. Accuracy of cut-off length is maintained to a very close tolerance, the supplier claims. *Schultz Engineering Corp., 190 Banker St., Brooklyn 22.*

Touch-button gummed-tape machine

Better Packages has introduced a new table-model electric gummed-tape machine that is designed to measure, moisten, cut and deliver carton-sealing tape in a fraction of a second. The company's Model 555 is available with a tape-length selector scale from 6 to 36 in. or from 15 to 45 in., with a release key for smaller or greater lengths as required. The fingertip-touch action of the tape selector is advantageous in speeding up carton runs of mixed sizes, says the supplier. A built-in heater keeps the water thermostatically controlled at the temperature needed for fast and thorough glue activation. *Better Packages, Inc., Shelton, Conn.*

Stock-design egg cartons

A new series of appetite-appealing stock-design egg cartons is being offered by Sutherland Paper. Four different designs, lithographed in full color, are available on the supplier's patented "Saf-Eg" carton. Each illustration shows the eggs in a different setting: eggs in a basket, ham and eggs, poached eggs on toast and scrambled eggs and bacon. Also printed on the carton as part of the over-all design are side-panel vignettes illustrating various suggestions for serving eggs. The cartons are available in full-dozen size and in break-apart style. One of the supplier's egg-carton designs was awarded a first prize in the food category of the reecnt annual folding carton competition sponsored by the Folding Paper Box Assn. of America. (See "Prize-Winning Folding Boxes," MODERN PACKAGING, April, 1959, p. 191.) *Sutherland Paper Co., Kalamazoo, Mich.*

Circular, self-adhesive labels

Circular, self-adhesive paper labels in a variety of colors, mounted on sheets, are available from Pee Cee Tape & Label. They are designed for use in spot-labeling applications, for color coding, for inventory control programs and other operations. Label colors offered include black, white, yellow, blue, green, red and pink. The labels come in sizes ranging from 7/16-in. to 2-in. diameter. Additional data is contained in a catalog available from the supplier. *Pee Cee Tape & Label Co., 521 N. LaBrea, Los Angeles 36.*

One-color box printer

Available from Jack R. Levien is one-color box printer that can be furnished with a variety of feeds and conveyors and additional color stations. The printing assembly has center-blocking micro adjustments and the plate cylinder

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One of nature's perfect multipacks;
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custom formed to fit contents . . .
unique expandable feature
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Man's multipackaging; less perfect,
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If You Use Inner Bags or Overwraps

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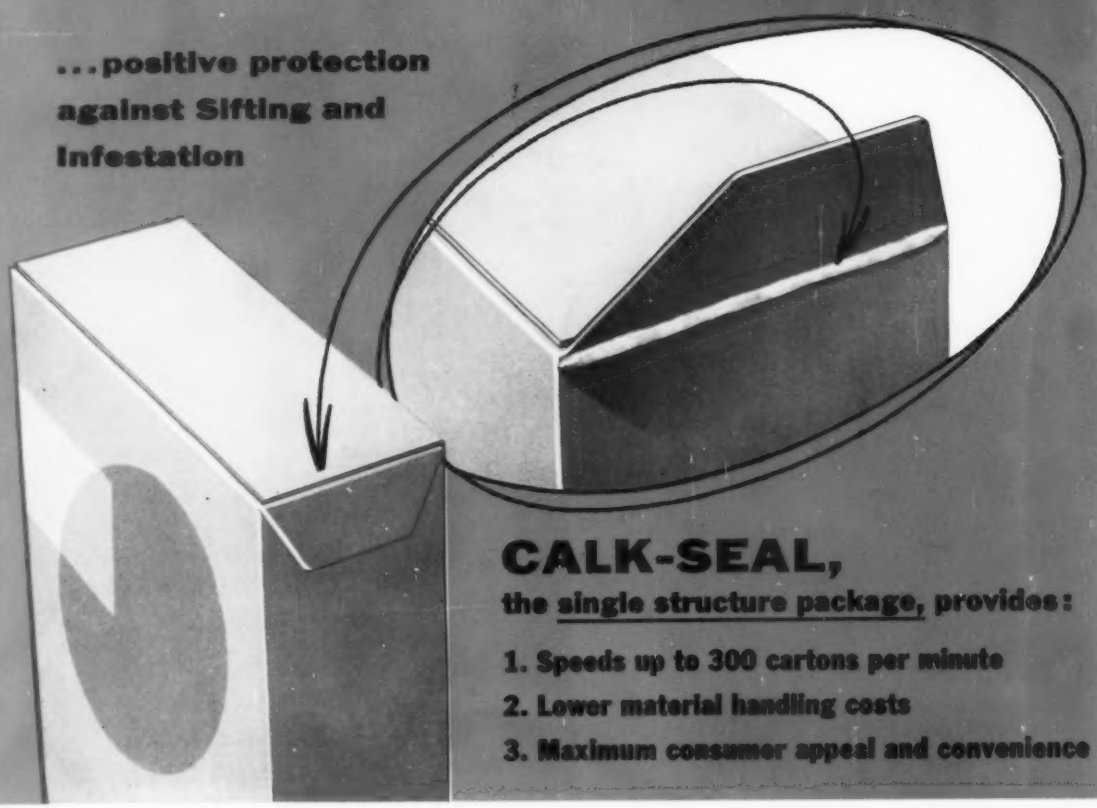
...positive protection against Sifting and Infestation



CALK-SEAL,
the single structure package, provides:

1. Speeds up to 300 cartons per minute
2. Lower material handling costs
3. Maximum consumer appeal and convenience

Calk-Seal, an entirely new carton sealing process, designed and developed by The Ohio Boxboard Company, is the most economical method ever devised to make folding cartons truly sift-proof and infestation-proof. It's a simple, inexpensive means of sealing cartons with a permanently pliable, non-tainting material.

Positive, damage-proof sealing is accomplished by the combination of Van Buren ears and the application of Calk-Seal. Regular adhesives are used to make flap and ear seals. Failure from imperfect carton formation is eliminated. Special moisture protective laminates are available.

Calk-Seal is a simple answer to a complex problem. For a modest investment, Calk-Seal applicators can be attached to existing lines. Phone or write today for information.

*Patent applied for

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Rittman, Ohio
Containers • Cartons • Paperboard

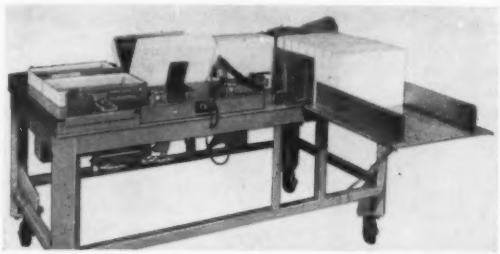
PLANTS
The Ohio Boxboard Company, Rittman, Ohio
Empire Box Corporation, South Bend, Indiana
The General Carton Company, Cleveland, Ohio
The Norwalk Paper Box Company, Norwalk, Ohio
Western Containers, Inc., Lockport, N.Y.
Fairbanks Containers, Inc., Miadletown, Ohio
Champion Containers, Inc., Plymouth, Michigan
The Ohio Boxboard Company, Cuyahoga Falls, Ohio
The Ohio Boxboard Company, Youngstown, Ohio

Planned Packaging moves merchandise

can be adjusted and locked in a printing-height range of ½ to 2¼ in. The ink fountain can be removed for easy wash-up. So that colors can be dried immediately after printing, a dryer and after-cooler are furnished as standard equipment. The press, which is available with either flexographic-printing or roller-coating assemblies, also can be used to print plastics, rubber, wood or metal. *Jack R. Levien, P.O. Box 5333, Richmond, Va.*

Fully automatic set-up-box closer

The Knowlton Co.'s new Autoclose set-up-box closer is reported to close boxes as fast as they are delivered from the wrappers. Fully automatic, the new machine automatically accepts the output of bases and covers (or lids) from



two automatic wrappers and combines them. Range of box specifications it will handle is reported as 4 in. long by 2 in. wide by ⅜ in. deep (minimum) and 15 in. long by 9 in. wide by 3 in. deep (maximum). Set-up time is said to be short and the parts necessary to change over from the largest to the smallest box cost very little, according to the manufacturer. The Autoclose is controlled by air valves and cylinders exclusively. The approximate 25 lbs. of air pressure required is controlled by a regulator provided with the machine. Floor space requirements are 38 by 70 in. exclusive of conveyors. *M. D. Knowlton Co., 28 Industrial St., Rochester 14, N.Y.*

New padded shipping bag

A new addition to its line of padded shipping bags is being marketed by Jiffy Mfg. Co. Called Duo-Bag, it has an overlapping back seam which forms a water-resistant envelope that can be used for documents, letters or any first-class-mail material. Mail can be inserted in the envelope after the product has ben pre-packed in the shipping bag. *Jiffy Mfg. Co., Hillside, N.J.*

Ink for 'invisible' code marking

"Blanclite," an invisible fluorescent marking ink for identifying liner paper, board and similar materials, is available from Magic-Glow. The marking ink is designed for printing codes on absorbent papers and kraft containers. It can only be detected by the use of black light, according to the manufacturer. *Magic-Glow Chemical Corp., 166 W. Washington St., Chicago 2.*

Lightweight steel-strapping kit

Intended for use where heavier strapping equipment is unnecessary or impractical is Inland Wire Products' new round steel-strapping kit. It consists of a lightweight, single-stroke manual strapping unit, an auxiliary wire cutter and 2,500 ft. of coiled, copper-coated steel strapping in an easeled dispenser carton. *Inland Wire Products Co., 3947 S. Lowe Ave., Chicago 9.*

Package for bulk shortening cuts waste

Complete elimination of product waste and sharply reduced time for product removal from the container are claimed by Kennedy Car Liner for its new 50-lb.-capacity bulk-shortening package. The package consists of a "Patapar" vegetable-parchment liner which is inserted in a corrugated inner liner which in turn fits into a 400-lb.-test fibreboard carton. According to the company, shortening waste is eliminated because the entire parchment liner is dumped into the melting unit. After the shortening has melted, the liner can be removed intact. The cube-shaped container also requires less storage space than is needed for conventional cylindrical drums, the supplier points out. *Kennedy Car Liner & Bag Co., Shelbyville, Ind.*

Even-heating sealing iron

A sealing iron for all thermoplastic films (except polyethylene) has been developed by Seal, Inc. Called the Yankee Thermo-Sealer, it is said to give steady, even heat over the entire sealing surface and it reportedly will not stick to any wrapping material. To provide even heat in the iron, a heating-element wire enclosed in aluminum oxide powder extends over all areas of its base. A triple-baked coating of Teflon makes the sealing surface non-sticking, says the supplier. *Seal, Inc., Shelton, Conn.*

Cylinder board grades available

East Texas Pulp & Paper is now producing converting cylinder board grades on a five-cylinder, 110-in. machine at a reported rate of 80 tons per day. Folding-carton grades now available from the supplier include solid bleached and solid unbleached, bleached one-side kraft back, bleached one-side manila back and double-bleached lined manila center. Additional grades are available for manufacturing heavyweight cups, cans, pails, lids and meat boards. Wax-laminated greaseproof and foil-laminated cylinder board also are being offered by the company. *East Texas Pulp & Paper Co., Silsbee, Tex.*

Film bags with headers attached

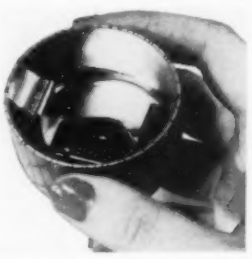
Prefabricated thermoplastic film bags, with printed hang-up header cards attached, are offered to packagers of self-selection merchandise by Par-Pak. The bags, which can be made of any commercial heat-sealable film, are available in a wide range of sizes. Headers are printed in color to customers' orders. The supplier claims that the custom-made film-and-header combination offers substantial savings in packaging-material costs. *The Par-Pak Co., 19850 Ingersoll Dr., Cleveland 16.*

Economical cutter and piler

Economy, efficiency and high-speed operation are among the advantages claimed by Clark-Aiken for its new Type D cutter and overhanging piler. The machine's design makes it particularly effective for sheeting paper, board, film, foil or paraffined paper, the supplier says. Functions of the cutter, delivery and piler are synchronized to provide an integrated operation from entry to finished pile. *The Clark-Aiken Co., Lee, Mass.*

Sure-grip cap for aerosol containers

A new clip-on overcap for aerosol containers has been introduced by J. L. Clark. The new cap, called "Spring-Grip," features a metal internal spring clip which grips the aerosol can firmly, yet permits the cap to be removed easily. It can be applied to any aerosol can without making modifications in the can itself. According to the supplier, the overcap offers greater flexibility in graphic design and assures more effective stacking and packing of aerosol containers.



The company also points out that the cap cannot be jogged off the container even in rough handling, thereby eliminating the possibility of accidental discharge of the spray product. *J. L. Clark Mfg. Co., Rockford, Ill.*

For Your Information

To date, 154 exhibitors have signed up for booth space at the **Packaging Machinery Mfrs. Institute Show of 1959.** Sponsored by the **Packaging Machinery Mfrs. Institute**, the show will be held Nov. 17-20 at the New York Coliseum. **A. R. Stevens** of Elgin Mfg. Co., chairman of the show committee, reports that only those concerns producing packaging machinery and directly related materials are being considered in the allotment of booth reservations. Further details about the PMMI Show can be obtained from the show management, Hanson & Shea, Inc., 1 Gateway Center, Pittsburgh 22.

L. Frank Thompson of the Hinde & Dauch Div., West Virginia Pulp & Paper Co., has been elected a director of the **Fibre Box Assn.**

The **American Rack Merchandisers Institute** held its annual mid-year merchandising meeting May 23-29 in Miami Beach. Housewares and related packaged non-food items were on display during a three-day sample show conducted May 24-26. The final three days of the meeting were given over to conferences on the institute's sales and merchandising plans.

Robert J. Vandenberg of Marathon, Div. American Can Co., has been re-elected chairman of the Technical Committee of the **Waxed Paper Institute.** Newly elected members of the committee are: **Harlan V. Anderson,** Rapinwax Paper Co.; **Robert C. Dale,** Nashua Corp.; **C. J. Johnson,** Pollock Paper Corp.; **Morris W. Kane,** The KVP Co.; **Myron H. Kollen,** Fabricon Products; **Carl P. Olstad,** Western-Waxide Div., Crown Zellerbach Corp.; **Warren R. Price,** Central Waxed Paper Co., and **Paul K. Wolper,** Riegel Paper Corp. The functions of the committee are to provide advice to WPI membership with respect to matters concerning quality, uses and merchandising of waxed paper.

"Packaging With Plastics" is the title of **American Management Assn.'s** Management Report 29. The 131-page book is an up-to-date report on materials, machinery and methods for plastic packaging. Also included are discussions of specific developments in the packaging of foods, drugs, chemicals and general merchandise. Price of the book to AMA members is $2.50; to non-members it is $3.75. For copies, contact AMA at 1515 Broadway, New York 36.

J. N. Andrews of The Ohio Boxboard Co. was re-elected pres. of the **Folding Paper Box Assn. of America** at its annual meeting. Elected to the exec. committee were: **W. J. Alford, III,** Alford Cartons; **Noble Andre,** Andre Paper Box Co.; Mr. Andrews; **D. A. Forsberg,** Forsberg Paper Box Co.; **Arthur N. Morris,** Newth-Morris Box Corp.; **Leo H. Schoenhofen,** Container Corp. of America, and **William H. Walters,** U.S. Printing & Lithograph Co. **Arthur L. Harris** of Mead-Atlanta Paper Co. is now a southern area director.

The 26th annual meeting of the **National Fibre Can & Tube Assn.** was held May 17-19 at the Hotel Chamberlin, Fort Monroe, Va. Speakers at the general business meetings held during the three-day meeting were: **Charles A. Lewis,** director, Container and Packaging Div., U. S. Dept. of Commerce; **V. J. Mackin,** gen. mgr., M. D. Knowlton Co.; **Lloyd Stouffer,** editor, MODERN PACKAGING, and **John A. Warren,** packaging consultant and former head of AMA's packaging division.

"How Paper is Made" is a book by **David C. Cooke** that traces the papermaking process from the first step of felling timber through conversion into packaging materials. Designed primarily for the young reader, the hard-cover, 64-page book is written in easy-to-understand language. The text is complemented by 30 full-page photographs. Published by Dodd, Mead & Co., the book is priced at $2.25. Quantity discounts can be arranged by contacting T. H. Davis, **American Pulp & Paper Assn.,** 122 E. 42 St., New York 17.

An 8% increase in the demand for corrugated and solid-fibre shipping containers this year over 1958 was forecast at the 20th spring meeting of the **Fibre Box Assn.** by **Peter W. Hoguet** of The Econometric Institute. Mr. Hoguet predicted also that the demand for fibre boxes will rise an additional 3% during the first quarter of 1960.

A limited number of the **Packaging Institute's** "Glossary of Packaging Terms" (second edition) is being made available at $3, instead of at the regular price of $6.75, reports **Charles E. Feld,** director of P.I. Copies may be obtained by sending check or money order to Packaging Institute, Inc., 342 Madison Ave., New York 17.

A new book by **Louis Cheskin,** director of the **Color Research Institute,** deals with the behavior of people when they go out to buy and tells how the factors that motivate them can be applied to improve a company's sales position. Titled "Why People Buy," this new book on motivation research includes a number of chapters that deal directly with packaging. Among them are: "Imagery and Color in Packaging," which discusses psychological connotations in this area, and "Developing a Package With the Aid of Research," an analysis of package development through the presentation of a typical case history. Copies of the book, at $5, are available from the publisher, Liveright Publishing Corp., 386 Fourth Ave., New York 16.

A market study indicating that supermarket managers prefer glue-sealed folding cartons over other styles has been published by **Alford Cartons.** The nine-page report is titled "A Study to Determine Supermarket Manager Preference for Varied Folding Carton Styles." It is a compilation of the results of interviews conducted among supermarket managers in the metropolitan New York area. According to the survey report, managers prefer the glue-sealed folding carton because "it stays closed, is easy to stock, discourages pilferage and offers long shelf life." Copies are available, without cost, from Alford Cartons, Ridgefield Park, N.J.

The 1959 **Holiday Packaging Beverage Show** will be held at the Hollywood Palladium in Los Angeles, Oct. 13-15. Sponsored by the Southern California Retail Liquor Dealers Assn., the merchandising and trade fair of the liquor and wine industry is designed as a showcase for 1959 gift packaging.

Dr. Berton S. Clark has been named 1959 winner of the Nicholas Appert Award by the **Institute of Food Technologists.** The award is made annually to honor a person for "pre-eminence in and contributions to the field of food technology." Dr. Clark was cited for his scientific contributions to the canning, can-making and allied industries, including his work in the development of the protective shipping container used for ocean tinplate shipments to the West Coast.

A three-dimensional "catalog" which contains actual working models of metered and non-metered aerosol valve components and assemblies, has been

Events

June 8-13—**Fifth International Conference of Printing Research Institutes,** Lehigh University, Bethlehem, Pa.

June 11-12—**Wirebound Box Mfrs. Assn.,** quarterly meeting, Sheraton-Blackstone Hotel, Chicago.

June 21-27—**International Design Conference,** Hotel Jerome, Aspen, Colo.

June 22-26—**American Society for Testing Materials,** 62nd annual meeting, Chalfonte-Haddon Hall, Atlantic City.

July 23-24—**Western Wooden Box Assn. (The Wooden Box Institute),** joint session meeting, Multnomah Hotel, Portland, Ore.

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And a Markem marking method makes important "in-plant" savings as well. The right Markem machine, type and specialty ink working in your plant marks the *right* quantities at the right time — with savings in inventory, labor and delivery time . . . eliminates waste from obsolescence . . . handles "short runs" rapidly and economically . . . provides flexibility that allows *one machine to do a variety of marking jobs.*

Call your local Markem man or write directly, enclosing samples and requirements. Markem Machine Co., Keene 1, N. H.

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F.Y.I. [*Continued*]

developed by **Valve Corp. of America.** Prepared for prospective packagers of aerosol products, the "catalog" consists of two 11-by-14-in. pegboards on which are mounted samples of valves, actuators, dip tubes and other aerosol-container components. It is available without charge by writing, on your company letterhead, to VCA, 1722 Fairfield Ave., Bridgeport, Conn.

The **Dairy Industries Supply Assn.**'s recent 40th annual meeting in New York was attended by 167 member firms. **R. O. Davison** of the Kelco Co. was elected v.p. of DISA, succeeding **Russ B. Wilhelm** of Owens-Illinois Glass Co., who resigned from the post.

Malcolm McVickar of Crocker, Burbank Papers, Inc., was re-elected chairman of the **Polyethylene Extrusion Coaters Group** of **Specialty Paper & Board Affiliates** at the group's recent annual meeting in New York. **E. D. Mendels** of Ludlow Papers, Inc., was re-elected vice chairman. The group is composed of 17 companies which are concerned with polyethylene extrusion coating on paper, paperboard, film, foil and other substrate materials.

"Color and printing inks" is the theme of the **Fifth International Conference of Printing Research Institutes,** which is being held June 8-13 at Lehigh University, Bethlehem, Pa. The printing-ink industries of 15 nations are represented by delegates at the convention.

The **American Society for Testing Materials** has completed publication of its 10-part "1958 Book of ASTM Standards." Supplements to each separately available part of the book will be published late this year and again in 1960. Part 6 of the book is titled "Wood, Paper, Adhesives, Shipping Containers, Cellulose, Leather." Priced at $10, it contains 219 standards in 1,040 pages. It can be purchased from ASTM at 1916 Race St., Philadelphia 3.

Spencer Chemical Co. will sponsor this month a day-long seminar on the production and marketing techniques for polyethylene film made by the chill roll (or cast) process. The seminar, open to anyone interested in the subject, will be held Wednesday, June 17, Hotel Manhattan, New York. Advance registration is being handled by **L. H. Doar,** Spencer Chemical Co., Dwight Bldg., Kansas City, Mo. Technical sessions are scheduled for the morning, while marketing sessions will be held in the afternoon.

The **U. S. Dept. of Commerce** displayed two plastic-forming machines at the third **Tokyo International Trade Fair,** held May 5-22. The machines, on loan from the Portland, Conn., Div. of **Emhart Mfg. Co.,** were a pressure-forming unit for making formed cups from oriented polystyrene and a vacuum-forming machine for making carded polyethylene skin packages.

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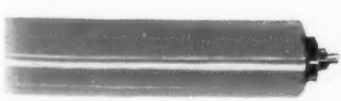

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U. S. Patents Digest

Method of and Apparatus for Filling and Emptying Collapsible Containers, James A. Mitchell (to Union Carbide Corp., a corporation of New York). U.S. 2,875,562, March 3. A method of filling a collapsible container to prevent contamination of the container contents, which comprises first inflating said container with gas under pressure through an opening separate from filling opening.

Method of Sealing Closure to Container, George Arlington Moore, New York. U.S. 2,875,563, March 3. The method of preparing a portable closure with means to seal its periphery wall portion to a coincident periphery wall defining the open mouth of a container.

End Feed and Sterilizer for Can-Closing Machine, Thomas C. Werge and Ed Laxo (to W. F. & John Barnes Co., Rockford, Ill., a corporation of Illinois). U.S. 2,875,564, March 3. In combination with the elements of a can-closing machine, a can-body feed.

Can-Marking Device, Elmer Hendry (to Richmond-Chase Co., San Jose, a corporation of California). U.S. 2,875,685, March 3. A marking device for cylindrical-sided cans, which device has a rotary printing roll provided with peripherally disposed type thereon.

Dispensing Container for Sheet-Wrapping Material, Robert I. Kallman, Thomas M. Steinbach and Robert F. Stoming (to The Dow Chemical Co., Midland, Mich., a corporation of Delaware). U.S. 2,875,891, March 3. A dispensing container for packaging a wound roll of sheet wrapping material.

Carton, Oscar L. Vines (to Continental Paper Co., Ridgefield Park, N. J., a corporation of New Jersey). U.S. 2,875,937, March 3. A carton blank comprising a substantially rectangular piece of sheet material provided with a plurality of spaced parallel fold lines extending transversely across the blank.

Fruit-Shipping Crate, Walton B. Crane (to Allied Plastics Co., Los Angeles, a corporation of California). U.S. 2,875,939, March 3. A paperboard crate comprising a bottom and upstanding side walls connected to spaced side margins thereof, an end wall structure extending upwardly from each end of said bottom.

Machine for Applying Rotatable Closure Caps to Containers, Robert K. McElroy and Ray M. Smith (to White Cap Co., Chicago, a corporation of Delaware). U.S. 2,876,605, March 10. An apparatus for applying rotatable closure caps onto the mouths of containers, wherein the containers are conveyed in single file through the apparatus by conveyor means.

Container-Closing Apparatus, Olav Bjering (to Owens-Illinois Glass Co., Toledo, a corporation of Ohio). U.S. 2,876,606, March 10. Apparatus for applying skirted, screw-threaded closure caps to the screw-threaded necks of both bottles and jars.

Packaging Machine, Robert W. Vergobbi (to Pneumatic Scale Corp., Ltd., Quincy, Mass., a corporation of Massachusetts). U.S. 2,876,608, March 10. A carton conveyor of the character described for setting the adhesive of folded and adhesively secured carton flaps folded against the top, bottom and side walls of the carton.

Solder-Free Cemented Body-Seamed Sheet-Metal Container and Method of Fabricating the Same, Allen Buck and John Sermattei (to E. I. du Pont de Nemours and Co., Wilmington, a corporation of Delaware). U.S. 2,876,725, March 10. A method of fabricating a tubular, sheet-metal can-body shell having a solder-free interengaged and locked side seam containing a sealant confined in the seam cavity.

Dispensing Package, Frank P. Coons (to Johnson & Johnson, a corporation of New Jersey). U.S. 2,876,892, March 10. A dispensing container for limp material in web form, having a chamber for housing a quantity of the material to be dispensed and which is defined in part by a front wall panel.

Container Construction, Erich W. Gronemeyer (to Container Corp. of America, Chicago, a corporation of Delaware). U.S. 2,876,926, March 10. A cosmetic container comprising two cup-shaped parts having threaded engagement with one another at longitudinally overlapping portions of said parts.

Packaging Apparatus, John F. Currivan (to Carton Associates, Inc., Louisville, Ky., a corporation of Delaware). U.S. 2,877,614, March 17. Apparatus for moving a plurality of containers positioned in staggered relation in a carton into aligned relation, one container projecting from one end of said carton.

Liquid-Dispensing Container, Eli A. Zackheim (to Johnson & Johnson, a corporation of New Jersey). U.S. 2,877,810, March 17. A liquid-dispensing container comprising a bottle and neck closure therefor, the neck closure having an opening for sucking out liquid, which opening is positioned above the liquid level when the bottle is upright.

Dispensing Container, Buford M. King, Jr. (to The Upjohn Co., Kalamazoo, Mich., a corporation of Michigan). U.S. 2,877,927, March 17. A container for dispensing flat cylindrical tablets, comprising a shallow box divided into a dispensing compartment of sufficient size to hold one tablet only and a storage compartment of sufficient size to hold a plurality of tablets.

Frozen-Food Package, Ralph J. Jorgenson (to Pacific Coast Foil Co., a corporation of California). U.S. 2,878,128, March 17. A frozen-food package comprising an aluminum dish having an outer rim and an inner wall defining a plurality of compartments separated from one another by the wall.

Valve and Dispensing Apparatus for Pressure Containers and the Like, David Daniel Michel, Chicago. U.S. 2,877,936, March 17. A dispensing device for an apertured pressurized container, comprising a container cap having an apertured web portion for closing said pressurized container.

Wrapping Machine, William Hoppe (to Package Machinery Co., East Longmeadow, Mass., a corporation of Massachusetts). U.S. 2,878,629, March 24. An article-wrapping machine having means for wrapping the leading end of a continuous web of sheet material about the girth of an article.

Apparatus for Assembling Containers, Richard J. Bartlett (to Smith, Kline & French Laboratories, Philadelphia, a corporation of Pennsylvania). U.S. 2,878,631, March 24. Apparatus for assembling containers, each including a hollow body having an open end and threads adjacent to the open end.

Machine for Capping Containers, Robert A. Foresman, Jr., Philadelphia. U.S. 2,878,632, March 24. In an apparatus for applying a cup-like cap to the open top of a container having a neck converging toward the opening, the combination comprising an assembly including a plurality of fingers.

Container, Bertram W. Coltman, Jr. (to Republic Molding Corp., Chicago, a corporation of Illinois). U.S. 2,878,848, March 24. A flexible plastic container and cover therefor, said container and said cover having such local flexibility relative to each other that the contour of either at a local portion may be changed relative to the other by the flexing of either or both of said parts.

Container for Packaging Pills, Mary Ellen Ivy (to The Goodyear Tire & Rubber Co., Akron, Ohio, a corporation of Ohio). U.S. 2,878,928, March 24. A relatively flat container formed with two substantially parallel large flat surfaces, an opening near the center of one of said surfaces, and a plurality of pills in the container in spaced relation in tubing of oriented film.

Carrying Device for Containers, Edward O. Then (to American Can Co., New York, a corporation of New Jersey). U.S. 2,878,930, March 24. In combination, a pair of independent rectangular containers having at their upper ends laterally projecting peripheral ledges having vertical shoulders thereon.

Article-Packaging Means, Charles D. Welshenbach and John J. Aust (to West Virginia Pulp & Paper Co., New York, a corporation of Delaware). U.S. 2,878,984, March 24. A container comprising a first pair and a second pair of oppositely disposed side walls, pair of top flaps extending toward each other.

Collapsible Carton, William H. Inman (to Bloomer Bros. Co., Newark, N.Y., a corporation of New York). U.S. 2,878,986, March 24. A collapsible carton hav-

ing a self-erecting bottom comprising a blank which is cut, scored and folded to form foldably connected side walls and a closure wall.

Collapsible Carton, William H. Inman (to Bloomer Bros. Co.). U.S. 2,878,987, March 24. A collapsible carton having a self-erecting bottom comprising a blank which is cut, scored and folded to form foldably connected front, side, rear and closure walls.

Method of Packaging Articles, Herbert William Brock, Abbotsford, Australia. U.S. 2,879,635, March 31. A method of packaging articles, comprising the steps of placing the articles in open receptacles of thermally shrinkable, stretched, heat-sealable material, and covering the receptacles with heat-sealable material.

Package-Handling Apparatus, Arthur C. Schroeder (to Schroeder Machines Corp., Syracuse, N. Y., a corporation of New York). U.S. 2,879,637, March 31. Apparatus for accumulating a plurality of packages advanced in a procession by a package conveyor and arranging the packages in a predetermined group pattern for inserting the grouped packages into a shipping case.

Thermoplastic Container and Method of Making Same, Andrew A. Root (to Bradley Container Corp., Maynard, Mass., a corporation of Delaware). U.S. 2,879,818, March 31. A container of the class described, including a seamless container body of thermoplastic material having a reduced neck at one end and a sealing area at the other.

Locking Assembly for Receptacle Closures, Ernest Hoffman and Claude D. Gresham (to Tip-Top Products Co., Omaha, a corporation of Nebraska). U.S. 2,879,916, March 31. A container of the class described, including a body having an open top, a cover for the top and a detachable handle having end portions pivotally connected to opposite sides of said body.

Nestable Plastic Containers, Alfred Flack (to Lily-Tulip Cup Corp., New York, a corporation of Delaware). U.S. 2,879,917, March 31. A plastic nestable container having a slightly tapered side wall extending upwardly.

Bottom Closures for Lined Cartons, Frank D. Bergstein and Robert W. Nerenberg (to The Bergstein Packaging Trust). U.S. 2,879,933, March 31. A knock-down carton comprising body walls in articulation and a flat, tubular liner therein adhesively secured to the body walls of the carton.

Carton, Thomas E. Flynn (to Fort Wayne Corrugated Paper Co., Fort Wayne, a corporation of Indiana). U.S. 2,879,934. March 31. A unitary carton-forming blank of semi-rigid sheet material so slit, cut, scored and arranged as to provide an aligned, longitudinally extending series of connected side and end wall-forming panels.

Apparatus for Detecting Containers Having Mismatched Parts, Ronald Nordquist and Harold T. Odquist (to American Can Co., New York, a corporation of New Jersey). U.S. 2,880,328, March 31. A machine for detecting containers having mismatched tops and bodies through code parts selectively placed on their exterior walls.

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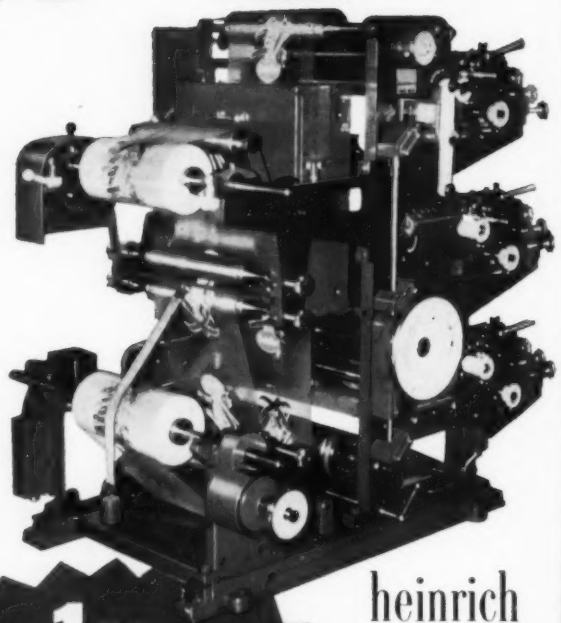

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EQUIPMENT • SUPPLIES • SERVICES

LABELERS. Illustrated technical data sheets describe semi-automatic labelers for round containers such as bottles, cans, aerosols, etc., from 2 oz. to 5 gal. Machine handles up to 35 containers per min. Long and Co., Inc. **(F-950)**

IMPRINTERS. 4-page illustrated brochure describes an imprinter for folding cartons, boxes, cans and canisters; and an imprinter for printing designs and trademarks on 1 to 5 sides of large shipping cases, boxes and crates. Adolph Gottscho, Inc. **(F-951)**

TAPE GUIDE. 26-page guide contains major manufacturers' tape specifications, product numbers, descriptions, physical properties and chief uses. Behr-Manning Co., Div. of Norton Co. **(F-952)**

CHEMICAL PACKAGING SERVICE. 16-page illustrated brochure describes this company's laboratory, manufacturing and packaging facilities for the packaging of chemical household, personal, pharmaceutical, commercial, and industrial products in glass, tin or aerosol containers. John C. Stalfort & Sons. **(F-953)**

PLASTIC COATED AEROSOL BOTTLES. 8-page illustrated brochure gives features and specifications for this company's lines of stock aerosol rounds, stock fancy aerosols, private mold bottles, and molded plastic caps. Wheaton Plastics Co. **(F-954)**

TABLET INSPECTOR. Illustrated data sheet describes a machine that inspects from 50,000 to 150,000 tablets or capsules per hr. Rejection and removal of imperfect tablets is done manually or by vacuum tube pick-up. Popper & Sons, Inc. **(F-955)**

HEAT SEALING PACKAGER. Illustrated data sheet describes a machine that automatically forms, fills, and heat seals unit packets in any heat seal material. Handles tablets, powders, liquids, and small objects. Mercury Heat Sealing Equipment Co. **(F-956)**

HYDRAULIC EMBOSSERS. Illustrated brochure describes hydraulic embossers and flame-hardened matched steel rolls. Points up sales appeal of embossing napkins, writing papers, food product wraps, etc., to give linen-like surfaces, parchment effects, signature motifs, etc. Modern Engraving & Machine Co. **(F-957)**

POWERED TWISTER. Illustrated technical data sheet describes a powered twister for round containers. Unit, of stainless steel, handles between 60 and 180 bottles per min. Island Equipment Corp. **(F-958)**

FLEXIBLE PACKAGING SERVICE. 16-page illustrated brochure describes this company's facilities for the design and production of flexible packaging materials. Brochure emphasizes market research, research and development, technical service. Dixie Wax Paper Co. **(F-959)**

CUSHIONED INSULATED BAGS. Illustrated technical data sheets describe cushioned, insulated, water-resistant bags for mailing and shipping books, premiums, candy, ice cream, radio parts, watch and aircraft parts, perishable drugs, lamps, cigars, etc. Columbian Rope Co. **(F-960)**

LAMINATORS. 12-page illustrated brochure describes lines of laminators for oil, film, paper, board and cloth. Includes combination board laminator and coater, end-line laminating and coating units, thermoplastic laminator for plastic domes, etc. Inta-Roto Machine Co., Inc. **(F-961)**

BAG CLOSING MACHINE. 6-page illustrated brochure describes a machine capable of applying up to 2,500 metal fasteners per hr. to plastic bags and casings, containing meat, cheese, cookie dough, candy, poultry, etc. Vac-Tie Fasteners, Inc. **(F-962)**

TAPE AND LABEL PRESS. Illustrated catalog sheet describes a flexographic press for high-speed printing up to 4 colors and laminating on tape, or printing up to 3 colors and die-cutting labels in any shape. New Era Mfg. Co. **(F-963)**

METALLIC PAPERS. Book contains samples of this company's moisture-resistant, lightfast, non-tarnishing metallic papers. Prices included. Matthias Paper Corp. **(F-964)**

BULK FOOD CONTAINER. 23-page illustrated case history describes the manufacture and features of a sanitary, 45-lb. capacity, plastic-coated paperboard tube container for semi-liquid foods such as eggs. Sealright-Oswego Falls Corp. **(F-965)**

PACKAGING FILM FOR METALS. 4-page technical bulletin describes a rust inhibiting, transparent, heat-sealable, high-strength film for packaging ferrous metal products. Film eliminates need for oils, greases, rust preventatives for packaging precision parts, tools. Daubert Chemical Co. **(F-966)**

BULK ADHESIVE HANDLING SYSTEM. 4-page brochure tells how tank truck delivery system cuts costs of liquid and dry adhesives by automating shipping, delivery and handling. The F. G. Findley Co. **(F-967)**

CONTRACT PACKAGING OF AEROSOLS, LIQUIDS. 6-page illustrated brochure describes this company's laboratory and plant facilities, and experience in packaging liquids and aerosols. Company handles cosmetics, perfumes, soaps, industrial chemicals, etc. Fluid Chemical Co., Inc. **(F-968)**

PAPER CUP-MAKING MACHINES. 22-page illustrated booklet describes lines of German-built automatic and semi-automatic cup-making machines, and auxiliary equipment for gluing, closing, paraffining, etc. Norso Trading Co., Inc. **(F-969)**

CORRUGATED BOXES. 30-page brochure illustrates, gives features and uses for this company's corrugated boxes. Discusses factors involved in selection, including original packing, intermediate handling, storage, methods of stacking and loading, etc. Hinde & Dauch. **(F-970)**

STEEL STRAPPERS. File folder contains illustrated literature describing power and hand tools for applying steel strapping. Cites reinforcement, closure, baling, palletizing advantages. Stanley Steel Strapping, Div. of The Stanley Works. **(F-971)**

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EQUIPMENT • SUPPLIES • SERVICES

SIFTER TOPS. Illustrated data sheets describe merchandising production features of sifter tops used for dispensing powders and granular products packaged in paper tube and plastic containers, glass jars, metal cans, set-up boxes, etc. The Faran Co. **(F-972)**

PACKAGE MACHINERY MANUFACTURING. 4-page illustrated folder outlines this company's experience and facilities for the production of packaging machinery. Barnes Drill Co. **(F-973)**

TAPE APPLICATOR. Illustrated data sheet describes a machine that applies pressure-sensitive tape directly to a wide variety of shapes and surfaces, to effect fin-seal, flat-seal and wrap-around closures. George W. Desmet Corp. **(F-974)**

IMPRINTER. 4-page brochure describes a line of letterpress units for overprinting on flat-folded cartons, labels, bags, flat containers, sleeves, etc., at rates up to 7,000 per hr., with continuous feeding and stacking. B. Verner & Co., Inc. **(F-975)**

TAG STRINGERS. 4-page illustrated brochure describes an automatic machine that attaches strings to booklets, shipping and merchandise tags at rates up to 11,000 pieces per hr. Also describes an automatic tag stringer and looper, an automatic wiring machine, etc. Graeber Stringing & Wiring Machine Co. **(F-976)**

CUTTER-PILERS. Illustrated brochures describe design and performance features of this company's lines of machines for sheeting paper, board, foil, film, and paraffined paper. Units are also suitable for laminating and finishing room service. The Clark-Aiken Co. **(F-977)**

CLUSTER-WRAPPER. Series of illustrated brochures describe an automatic machine for the single or multi-unit packaging of frozen food cartons, candy bars, cigarettes, books, soaps, crackers, etc. Machine handles square, rectangular or flat containers. Mead-Atlanta Paper Co. **(F-978)**

WEB GUIDING EQUIPMENT. 4-page illustrated brochure describes a line of automatic guiding equipment for web widths ranging from a fraction of an inch to several feet, and for tensions in ounces or tons. Fife Mfg. Co., Inc. **(F-979)**

FIBRE DRUMS. 4-page illustrated brochure describes this company's lines of round corner, convex sided fibre shipping drums, convolutely wound, designed for the packaging of sensitive and delicate products. Drums available with protective linings, coatings. The Greif Bros. Cooperage Corp. **(F-980)**

OUTSERT APPLICATORS. Illustrated data sheets describe a wax dropper for application of outserts on jars, cans, bottles, cartons, etc., at speeds up to 100 units per min. Literature also describes machine that applies up to 200 units per min. to various packages. Outserts, Inc. **(F-981)**

AUTOMATIC SLITTER. 8-page illustrated brochure describes an automatic slitter featuring a completely enclosed automatic spacer, a center carriage that moves by rack and gear on each rail, complete adjustability of the knife setting, etc. Lever Mfg. Co., Inc. **(F-982)**

A BOX BOTTOMER. Illustrated technical data sheet describes a machine that enables an operator to staple the bottoms of an entire length of boxes up to 24 in. long in one straight pass through the machine, with one press of the foot pedal. Bostitch. **(F-983)**

LABEL MAKING MACHINES. Illustrated brochure gives features, specifications and prices for a line of machines that print and die-cut pressure-sensitive labels in a single operation. Sohn Mfg., Inc. **(F-984)**

CHAIN BEAD SEALER. Illustrated data sheet describes a semi-automatic polyethylene heat sealer that makes closures by fusing the bag tops, leaving a bead close to the contents of the bag. Applications include bags containing textiles, produce, etc. Mechanical Div., Doughboy Industries, Inc. **(F-985)**

ADHESIVES. 20-page booklet gives features, uses for this company's adhesives for bottle and can labeling, bags, case sealing, films, foils, fibre tubes, etc. H. B. Fuller Co. **(F-986)**

BAG MAKING MACHINES. 4-page illustrated brochure describes machines that make polyethylene bags in sizes ranging from 3 by 3 in., to 40 by 40 in. Includes a complete side-weld machine for running plain or gusseted bags from printed or unprinted tubing or sheet stock. Schjeldahl Co. **(F-987)**

AEROSOL PROPELLANTS. 16-page illustrated brochure gives features and uses of this company's lines of propellants. Lists contract fillers and surveys the future outlook for aerosol sales. General Chemical Div., Allied Chemical Corp. **(F-988)**

MINIATURIZED ELECTRIC EYES. Series of illustrated brochures describe the uses of electric eyes as counters, edge-guides, bottle cap monitors, feed controls, safety guards, weight controls, etc. Photomation, Inc. **(F-989)**

FOIL WELDING EQUIPMENT. Illustrated 4-page bulletin describes a line of continuous seam, ultrasonic welders that weld foil without arc, spark, at low temperatures. Sonobend Corp., Sub. of Aeroprojects, Inc. **(F-990)**

PLASTIC UTILITY BOXES. Illustrated brochure gives features and specifications for lines of clear and colored transparent, and colored opaque plastic utility boxes for packaging hardware, sporting goods, toiletries, etc. Plastics Div., The Vichek Tool Co. **(F-991)**

STEEL DRUMS, PAILS. 14-page illustrated brochure describes line of steel shipping containers, ranging from 3½ gal. 26 gage lug cover pails to 55 gal. 12 gage all-welded acid drums. Containers available with lacquer linings, in color, printed, etc. Container Div., Republic Steel Corp. **(F-992)**

PACKAGE OPENING TAPE. 8-page booklet gives tips to production personnel on the handling and storage of "Zip-Tape", this company's cellophane package-opening tape. The Dobeckmun Co. **(F-993)**

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One of the main reasons for using glass containers is eye appeal—translating itself into sales appeal. Having acquired eye appeal for your product, you can't afford to gamble with your label—your product identification. That's why your choice of label adhesive is of vital importance.

Any good label glue of any recognized supplier will stick—that's fundamental. And our glues are up front on this score.

However, Morningstar-Paisley is concerned with more than just sticking. We're concerned with building extra qualities into our bottle labeling glues. Like . . .

> ease of machining . . . short breaking characteristics, to give clean machining without stringing . . . the ability to roll out to thin, continuous film—for strength and economy . . . quick tack to operate with today's continuous motion machines . . . stability over a wide range of temperatures and physical conditions.

There's no reason for any manufacturer to worry with label adhesive problems. M-P "shirt-sleeve" salesmen—our Technical Service Men—are trained and experienced in solving your problems and preventing new headaches from occurring. We welcome the opportunity to discuss your requirements at your convenience.

MORNINGSTAR-PAISLEY, INC., 630 W. 51st St., New York 19, N.Y. and 1770 Canalport Avenue, Chicago 16, Illinois.

MORNING STAR Paisley

MORNINGSTAR-PAISLEY INC.

Continuous Research in Adhesives, Starches, Gums, Resins, Plastisols, to Provide Top Technical Service to All Industry

Offices in 28 principal cities from coast-to-coast. In Canada: Morningstar-Paisley of Canada, Ltd., Toronto

If you had to open 'em— how would you seal 'em?

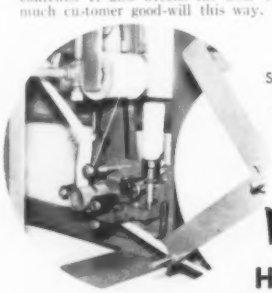
This Manufacturer tape-seals the modern GENERAL Way . . .

"RIP-CORD" feature now included.

It's so easy to open without injury to persons, contents or shipping cases. Cases are more dust proof, more pilfer proof and are undamaged for re-use. Everybody gains.

These Manufacturers use the old fashioned methods.

These *glued or stapled* cases must be torn or cut open. It's not easy, it's dangerous to persons and contents. It also wrecks the box. You don't win much customer good-will this way.



Shows **machine** application of "Rip-cord" to regular sealing tape.

How to get this EASY-OPENING "RIP-CORD" TAPE.

GENERAL'S new attachment to their tape sealer automatically adheres "Rip-cord" along the centerline of the gummed side of standard sealing tapes as the tape sealer applies these sealing tapes to the boxes, top and/or bottom.

Regardless of length, a machine cut, easy-lift tab is provided at *each end of the tape.* Fortunately, the cost of all these advantages is negligible. "General's" application of sealing tapes guarantees perfect alignment—perfect lateral and end centering—exact tape lengths with no excess waste—uniform wetting of tape for entire length with doctored water-roll control—positive rolled-in adhesion of the entire gummed area for maximum holding strength. There's absolutely nothing like it. It costs to put off . . . WIndsor 4-0644.

General Corrugated Machinery Co., Inc.
PALISADES PARK 3, N. J.
HAMBURG, W. GERMANY CABLE: GENCO

Crisis: the new food law–2

[*Continued from page 110*]

the supplier declares it suitable, the guarantee may be void. Furthermore, one major supplier asserts that none of the present methods for determining toxicological safety gives irrefutable assurance of absolute safety—which makes it virtually impossible for this supplier to issue a sweeping guarantee. The general principles of these points also apply to extruders, who process resins into films.

Thus, despite guarantees, practical responsibility applies to all companies down the line. Inevitably, food packers are going to have to learn a lot more about the chemical nature of their packaging materials than they ever knew, or wanted to know, before—if only to understand and apply intelligently the data on package-product compatibility they will receive from suppliers.

With widespread testing by both packagers and suppliers seemingly inevitable, two positive steps are suggested by some experts in the field to minimize duplication of effort and wasted research:

1. Packaging materials or food products can be grouped, in some instances, and tested in a single operation.

2. Associations can be asked to coordinate activities.

F&DA has opened the door on the first possibility. Both Commissioner Harvey and Dr. Lehman have stated that it may be possible in many instances to test a group of packaging materials by selecting two materials that bracket the group because they contain opposite extremes of the questionable chemical components. Also, a single material may be tested once for a whole group of foods—such as all fresh meats, all frozen vegetables, etc.—if the chemical and physical reactions of the foods with the packaging material are in a narrow range.

In all such cooperative efforts, however, F&DA should first be approached informally for an O.K. on the grouping or on the selection of key products to represent a group of food products or packaging materials, according to officials of the regulatory agency.

F&DA should also be consulted before extraction tests are performed, since the agency may have private information that could shorten the tests considerably. In any case, it is advisable to check with F&DA to find out the type and extent of experimentation that the agency considers adequate for clearance of a particular material.

Many suppliers feel that their industry associations should coordinate this group testing work. And some food processors admit that many problems peculiar to such specific packaging fields as baked goods, meats and frozen foods could be efficiently solved by group action—coordinated by vertical industry associations and financed by all the members.

Even individual packagers can cut costs, though, by banding together and performing a single series of tests for a particular product group, according to cost experts.

Some packagers and suppliers have expressed the belief that to expect such open cooperation among bitter commercial rivals is the height of optimism. But, other industry spokesmen say, this common emergency may be just the spark that is needed to bring companies together for the establishment of uniform manufacturing codes, which have long been proposed for some packaging materials.

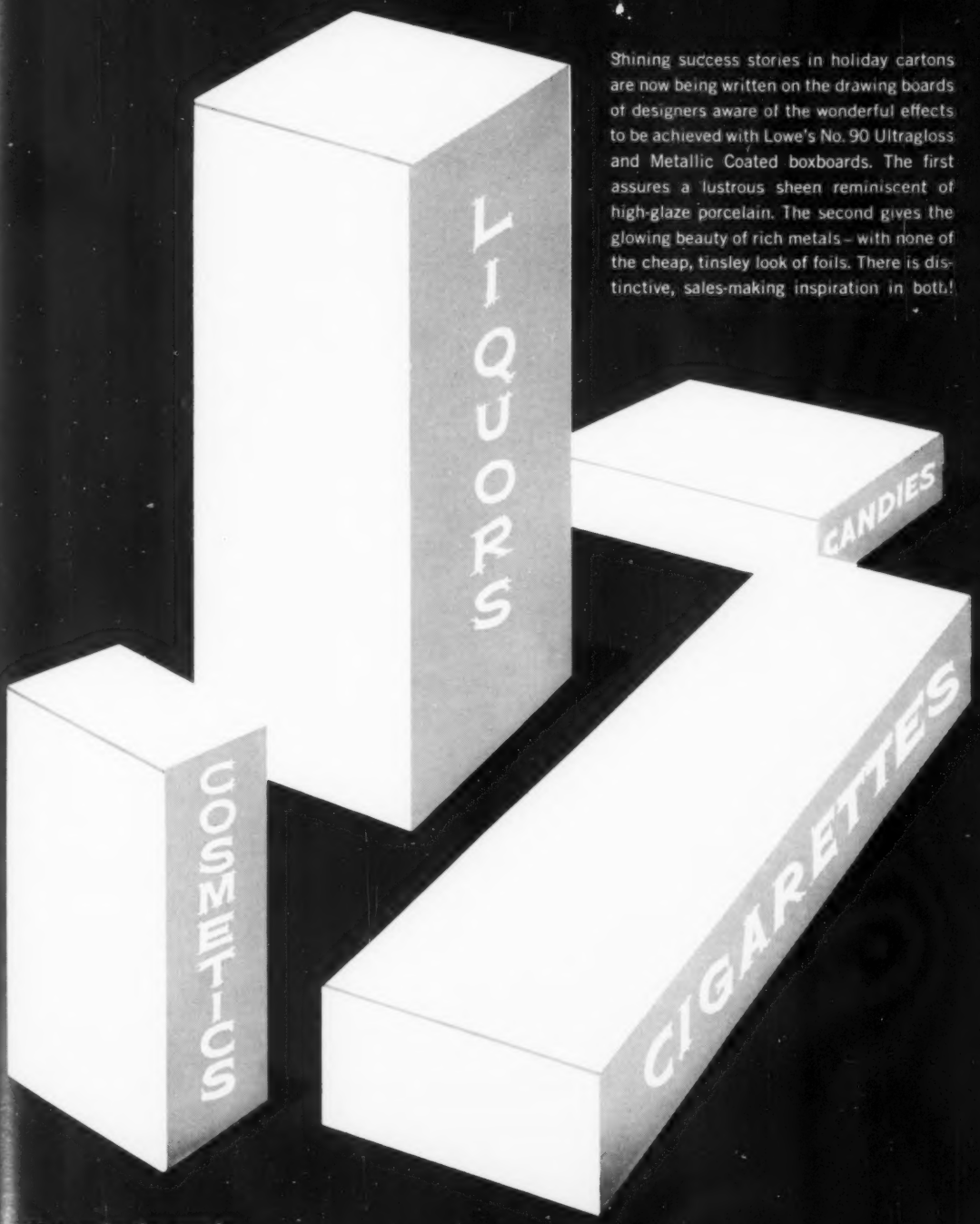
If the optimists prevail and broad packaging categories are handled by group testing, then packaging experts feel that there will be relatively few individual packaging problems left. Some of these can be solved by a switch in packaging materials, leaving an even smaller number of cases that will require expensive tests on the part of an individual packager.

Once present packaging materials are cleared, suppliers will undoubtedly have to carry the burden of clearing new developments as they come along, though many producers feel that the expense of this operation will boost the cost of packaging materials and restrict both packaging development and the materials available for food packaging.

For the present, the key word seems to be cooperation—a massive joint effort by packagers and suppliers to prove the safety of the many packaging materials and components now in use. ●

FOR YOUR HOLIDAY GIFT CARTONS...

No. 90 Ultragloss and Metallic Coateds!

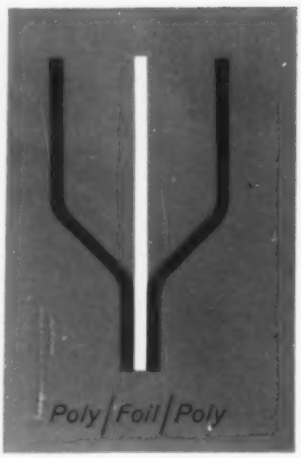


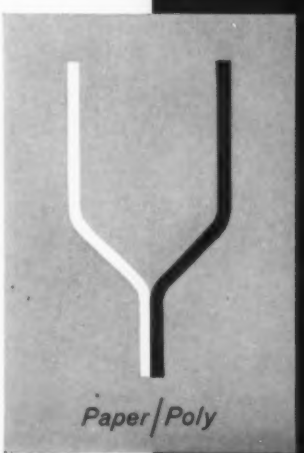
Shining success stories in holiday cartons are now being written on the drawing boards of designers aware of the wonderful effects to be achieved with Lowe's No. 90 Ultragloss and Metallic Coated boxboards. The first assures a lustrous sheen reminiscent of high-glaze porcelain. The second gives the glowing beauty of rich metals – with none of the cheap, tinsley look of foils. There is distinctive, sales-making inspiration in both!

REPRESENTATIVES/ Detroit—Joseph P. Giroux / Los Angeles—Norman A. Buist / Philadelphia—Philip Rudolph & Son, Inc. / St. Louis—A. E. Kellogg

Write today for samples...

LOWE PAPER COMPANY · RIDGEFIELD, NEW JERSEY



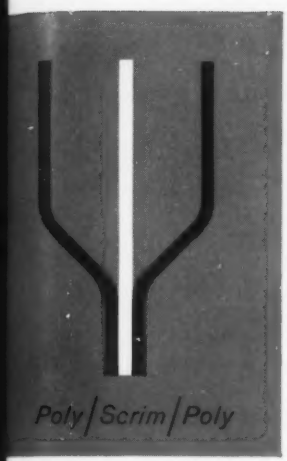


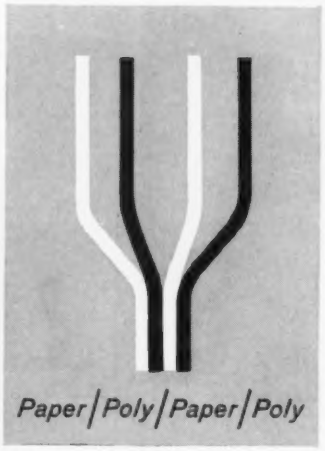
New Ludlow Polyethylene Films for Laminating to Substrates:

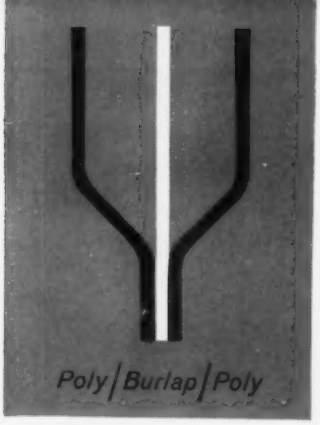
PARAPLENE—A high-density film with unusual gloss and clarity. It has good printability, excellent machineability and high resistance to greases, oils and chemicals. Can be heat sealed, boiled, sterilized or autoclaved.

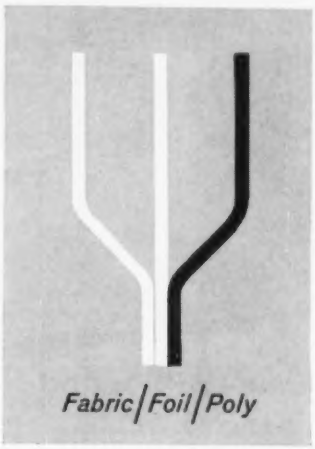
METAPLENE—A medium-density film with excellent machineability, good printability, heat sealability and unusual gloss and clarity.

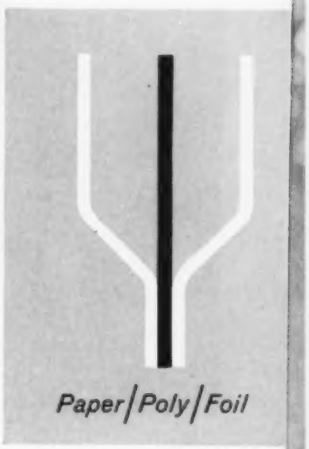
ORTHOPLENE—A low-density economical film with good gloss and clarity. Heat sealable at 230-300° F. The finest representative of conventional type polyethylenes.











Multi-ply your package effectiveness with Ludlow coated substrates

The fast-growing use of coated substrates in packaging has uncovered an urgent need for greater versatility in polyethylene laminants. With its newly developed higher and medium density polyethylenes – PARAPLENE* and METAPLENE*, Ludlow now offers a variety of coated substrates that is virtually unlimited in adaptability.

The unusual characteristics of PARAPLENE, for example, make it ideal for special applications where boiling, sterilizing or autoclaving are involved. And the higher density of both these films often results in a package of less bulk at no extra cost.

Greater resistance to moisture, greases, oils and oxygen means your products get better protection when these new Ludlow thermoplastics are used to package them. Write today for information or tell us what your particular requirements are. We'll be glad to help you solve them.

*Trademark applied for by Ludlow Papers, Inc.

LP

LUDLOW PLASTICS

NEEDHAM HEIGHTS 94, MASSACHUSETTS

Ludlow Plastics is a division of LUDLOW PAPERS, INC., manufacturers of fine papers, gummed label papers, gummed tapes, building papers and packaging papers. Ludlow Papers, Inc., is a subsidiary of Ludlow Manufacturing & Sales Company, manufacturers of jute and jute products.

NEW

TRANSISTORIZED PREDETERMINING COUNTERS

- **5000 Counts Per Second**
- **Instantaneous Recycling**
- **Increased Reliability**
- **Industrial Design**

A versatile group of transistorized production counters designed for industrial applications. Any number of decades can be furnished depending upon your requirements.

Can be operated by non-technical help merely by setting the selector knobs to the pre-set quantity within the range of the instrument. These counters are ideal for batch control, sequential predetermining, or accurate length control in such applications as packaging, coil winding, slitting, stacking and material handling.

The use of transistors means that heat — the enemy of reliability — has been eliminated. This reduces warm-up time and increases dependability. Printed circuits and simplified wiring further insure long trouble-free operations.

Standard counters are completely enclosed in attractive industrial cases, but can also be supplied without enclosures for panel mounting. A photo head to actuate these counters can be furnished in many configurations. Batch totalizers with push-button reset and special modifications of basic components can be furnished on request.

This is your complete package for predetermining counting at high speeds. Send for your copy of the new specification bulletin outlining the complete range of the series 1604 counter line today.

Everyone can Count on

Veeder-Root
INCORPORATED
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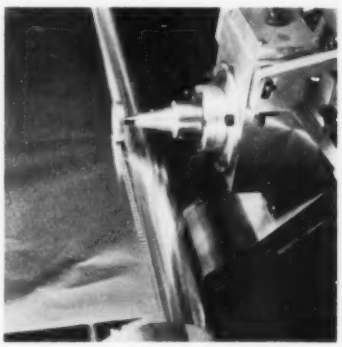
Hartford, Conn. • Greenville, S. C. • Altoona, Pa. • Chicago
New York • Los Angeles • San Francisco • Montreal
Offices and Agents in Principal Cities

Splicing foil sheet

A significant advance in aluminum foil manufacture—ultrasonic splicing to join ends of foil sheets in production—is being made available by



Ultrasonic splicing is accomplished by Alcoa with this small roller.

Aluminum Co. of America, Pittsburgh. Foil spliced by this new process reportedly will mean savings for packaging converters.

The new continuous-seam welding technique, the result of research conducted since 1956, is a joint development by Alcoa and Aeroprojects, Inc., West Chester, Pa. A production splicer has been installed at Alcoa's New Kensington, Pa., foil mill.

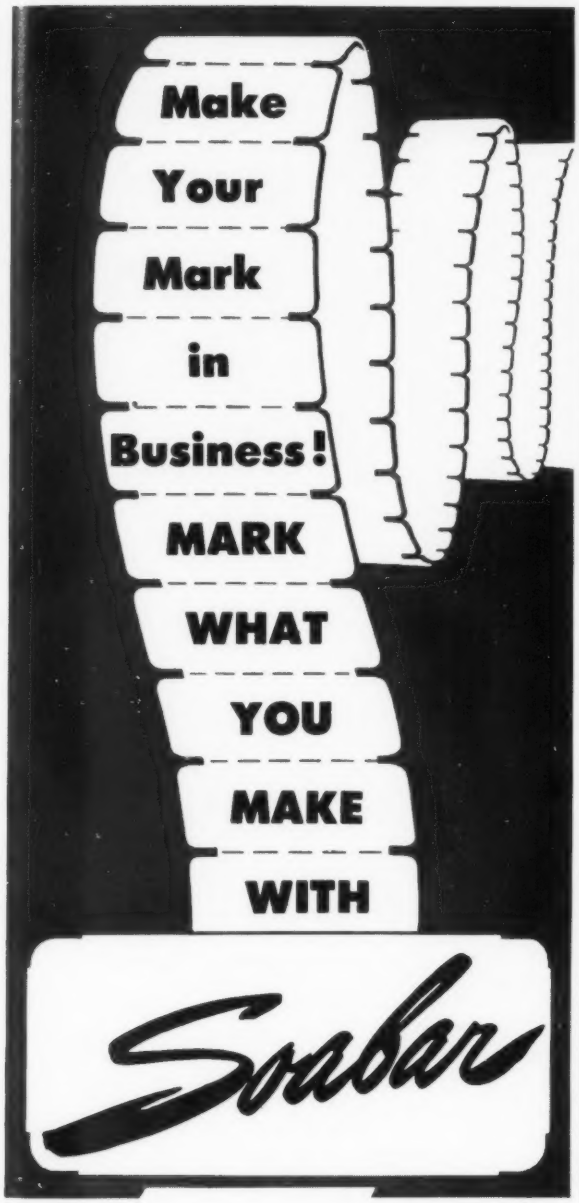
The splice made by the new machine is not over 3/32 in. in width and extends to the very edges of the foil. In many instances, it will not need to be removed, according to Alcoa, and generally it will not interfere with rotogravure printing.

A bond formed by the method has essentially the same strength of the parent foil and also provides a good vapor barrier, Alcoa reports. Since no adhesive is employed, the problem of layers sticking together as a result of adhesive extruding beyond the edges is eliminated.

Foil spliced ultrasonically will be available first in widths up to 38 in. Even greater widths will be spliced when Alcoa installs additional machines at its other foil-mill locations in Edgewater, N. J., Alcoa, Tenn., and Davenport, Iowa. ●

Fluorination patents

Exclusive rights to U. S. Patent No. 2,811,468 relating to the fluorination of plastics have been purchased by Plax Corp., Hartford, Conn., from Shulton, Inc., Clifton, N. J. The purchase also includes related world-



SOABAR lets you mark your own labels in your own plant . . . changing information from minute to minute! Soabar roll tickets and labels are designed to your specifications . . . tailored to your requirements for identification, box ends, pre-pricing, shipping or stock control. And smooth-running, economical Soabar equipment keeps pace with your production line . . . rapidly, efficiently, automatically!

Soabar COMPANY

Specialists in MODERN MARKING SYSTEMS

4221 Van Kirk Street • Philadelphia 24, Pa.

Today . . .

in Tubular Paper Packaging by Niemand Industries

Our package engineering service is eager to help solve your problem — be it design, construction or cost. Call us today.

NIEMAND INDUSTRIES, INC.

Manufacturers of Paper Tube Products

2502 TAYLORSVILLE ROAD
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Want your labels

Permanent?

use these special

KLEEN•STIK®

HIGH-*Tack*

Pressure-Sensitive Stocks

MANY LABELS **are intended to *remain in place* on product or package. To make sure *your* labels stay put, specify one of KLEEN-STIK's special "high-tack" adhesive stocks—they go on easy, yet *stick tight* on any smooth, hard surface. With KLEEN-STIK, you *know* you're getting the *best* pressure-sensitive stock for the job.**

- **Litho** No. 670-L
- **Kromekote** No. 670-K
- **Foil** No. 470-M. (Gold or Silver—Bright or Dull)
- **Clear Acetate** 2-mil No. 270-CA 5-mil No. 570-CA 3-mil No. 370-CA
- **Colored Litho** No. 670-CL
- **Fluorescent** No. 670-FL
- **"Tamperproof" Litho** No. 570-TP

Your Printer Can Help You choose the right stock for your permanent

KLEEN-STIK LABELS

Write for free samples, full details

KLEEN•STIK Products, Inc.

1934-1959 . . . 25 Years of Pressure-Sensitive Leadership

7300 W. WILSON AVE. • CHICAGO 31, ILL.

wide patents, according to Robert F. Elder, Plax president.

For more than a year, the Plax research staff has been investigating fluorination as a method for reducing the permeability of polyethylene and other thermoplastics. The fluorination of polyethylene containers, film and molded parts is expected to be among the first applications, according to Plax, although considerable research is yet required to make the process commercially practicable.

The fluorination of polyethylene packages, as a supplement to present Plax commercial bottle linings, extends further the possibilities of marketing heretofore non-packagable products through extended shelf life, according to C. Paul Fortner, Plax vice president of research. •

Break-apart shipper

Bunte Bros.-Chase Candy Co., Chicago, reports that additional wholesalers are carrying its lines and that retailers are ordering a broader variety of candies since it started packing its products in a new divisible

Single container breaks apart to form two shippable, pilferproof containers.

corrugated shipping container that holds the standard 2-doz. pack, yet can be easily divided by the distributor into two shippable, pilferproof 1-doz. containers. Cost is reported to be comparable with that of the former slotted cartons with partitions and divider pad, and the company states that no more set-up or packing time is required in its use.

To divide the container, the distributor simply places the center of the carton at the edge of a table, presses sharply downward on the extended half and it instantly and cleanly breaks apart into two completely sealed and pilferproof containers. No taping, gluing or other such operation is required after the container is divided.

SUPPLIES AND SERVICES: "Twin-Pac" container by Inland Container Corp., 700 W. Morris St., Indianapolis. •

Want your labels

Removable?

use these special

KLEEN•STIK®

LOW-*Tack*

Pressure-Sensitive Stocks

IF YOUR LABEL **is the kind that *should* come off . . . and come off *clean and easy* . . . be sure it's printed on the right KLEEN-STIK stock. KLEEN-STIK— pioneer and specialist in pressure-sensitive label stocks— has many special grades coated with "low-tack" adhesive that go on and come off with equal ease.**

- **Litho** No. 620-L
- **Kromekote** No. 720-K
- **Foil** No. 450-M (Gold or Silver—Bright or Dull)
- **Clear Acetate** 2-mil No. 220-CA 5-mil No. 520-CA 3-mil No. 320-CA
- **Colored Litho** No. 620-CL
- **Flex-Stik** No. 420-FSA, 620-FSB
- **Vinyl-Stik**

Tell Your Label Printer you want removable

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Write for free samples, full details

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1934-1959 . . . 25 Years of Pressure-Sensitive Leadership

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TO CATCH A LADY'S FANCY...

LusterBoard

Produced by
The Warner Brothers Co.
Bridgeport, Conn.
in 4-color letterpress.

Prince Matchabelli selected LusterBoard for its pretty and eye-catching cologne and perfume sachet packaging. The result is another award-winning example of the effects that can be achieved with strong, mirror-smooth LusterBoard. In drug stores, candy stores, grocery stores — wherever people shop — the packages that catch their eyes are usually made of LusterBoard. Here are a few of its advantages.

- ★ Maximum fidelity of halftone reproduction
- ★ Fast ink setting
- ★ Smooth folding, superb embossing effects
- ★ Range of 14, 16, 18, 20, and 22 point thickness

Samples, demonstration pieces, and technical information are available from:

S. D. Warren Company
89 Broad Street, Boston 1, Massachusetts

Warren's
HIGH STANDARD
Printing Papers

WARREN'S LusterBoard

NOW ONE MACHINE AUTOMATICALLY FORMS, FILLS AND SEALS YOUR PLASTIC PACKAGES

FOR ALL KINDS OF PRODUCTS!

Look How New FORMSEAL Benefits You:

Ideal packages, any shape container, blister or skin-pack, multiple or single units as big as 10" x 10" x 3¼".

Integrated machine, only 9' 7" long, feeds film, thermo-forms packages, fills, hermetically seals and trims as many as 12,000 packs per hour!

Money-Saving features reduce production-time, labor-cost, storage-space!

Versatile for all liquids, solids, viscous or powders using any mechanical or manual filling method.

Dramatic Visual Sales-Appeal for your foods, frozens, drugs, cosmetics, hardware, housewares, toys! All Formseal products bring you *big new* profits fast!

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SEND YOUR PRODUCT OR SPECIFICATIONS NOW
WRITE TODAY—

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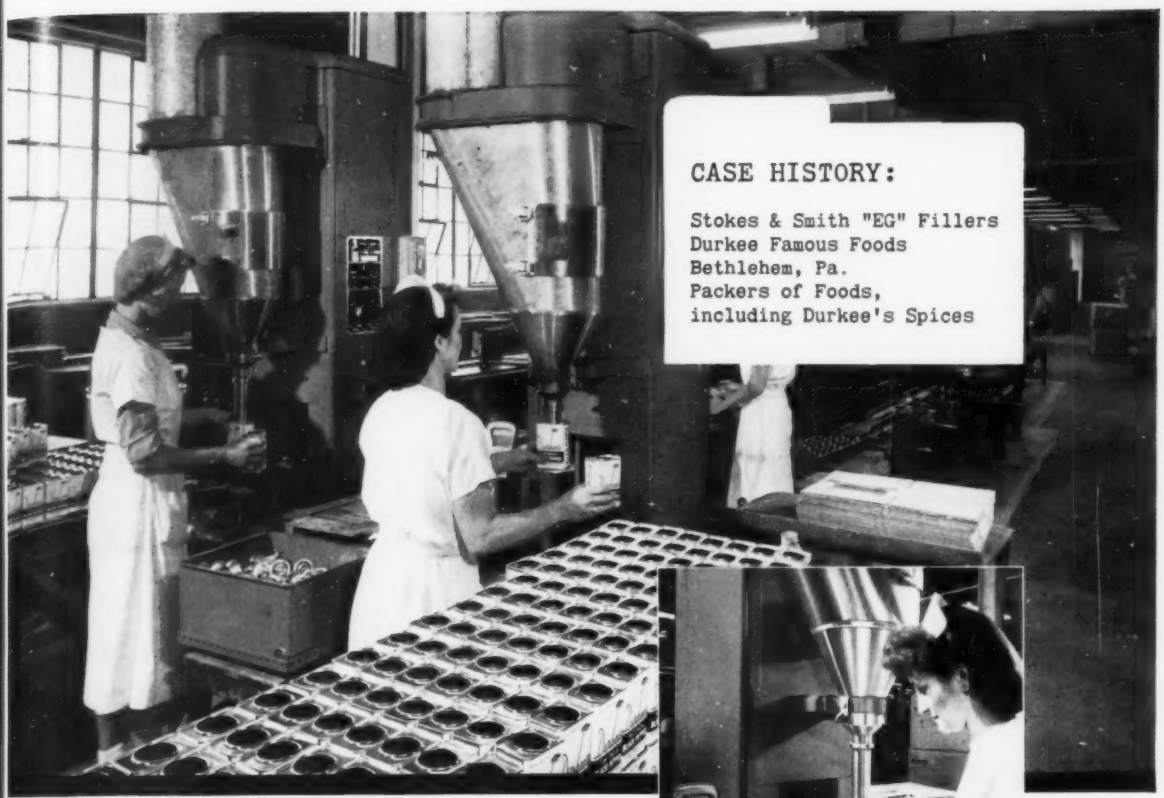


CASE HISTORY:

Stokes & Smith "EG" Fillers
Durkee Famous Foods
Bethlehem, Pa.
Packers of Foods,
including Durkee's Spices

Operator spot checks package weight. Dependable accuracy of "EG" Fillers has eliminated "shrinkage" caused by overfilling.

"EG" Fillers nearly double production while slashing "shrinkage."

"Since we replaced our filling equipment with Stokes & Smith "EG" Fillers, we've almost doubled production with no increase in the number of machines," reports Durkee Famous Foods, Division of Glidden Company. "At the same time, 'shrinkage' has been substantially reduced because filling is accurate."

"Besides saving us money, the machines have made it possible for us to increase our range of containers. Without complicated changeover, we now fill eight ounce cans, 16 ounce cans and glass, five pound cans and six pound sizes in cans and cartons."

In addition to handling a wide variety of container types, the "EG" Filler offers four filling methods to meet specific requirements – cam controlled auger, pressure packing, gross weight or combination auger-vacuum. Extreme flexibility and quick changeover make this unit ideal for short runs and off-size containers.

FOR COMPLETE INFORMATION, ASK FOR BULLETIN P-802-R.

Putting Ideas to Work

FOOD MACHINERY AND CHEMICAL CORPORATION
FMC Packaging Machinery Division
Stokes & Smith Plant
4904 SUMMERDALE AVENUE, PHILADELPHIA 24, PA.

Completely Automatic

BAG CLOSING OPERATION!

SAVE A SALARY EVERY WEEK WITH THE New FRY "TOMMY TUCKER"

■ Here is the answer to the great demand for a **fully automatic** bag closing line, the FRY Tommy Tucker Machine! Not only does it eliminate two steps formerly requiring the services of an operator, but also has proven itself **100% trouble-free** under strenuous production conditions! Plus—now you can speed up production— up to 50 bags per minute—and yet produce neater, uniform appearing packages. Designed to operate between Fry Closing Machines and V-30 Vibrator, the Tommy Tucker will, **1**—tuck the bag ends and, **2**—flatten the bag top for proper feeding into the CBG machine. No synchronization necessary—no bag jamming possible and **no operator** needed!

WRITE FOR NEW, INFORMATIVE LITERATURE ON ALL FRY MODELS. PLEASE ENCLOSE SAMPLE OF PRODUCT & BAG.

GEORGE H. FRY COMPANY

42 East Second Street, Mineola, N. Y. — Ploneer 6-6230

on any PACKAGING MACHINE there is a place where IMS SILICONE FLUID SPRAY WILL CUT YOUR COST

Anywhere Any Packaging Material Tends to Stick . . .

IMS SILICONE SPRAY will cut your scrap and stoppage rate—Save You Money! Try it on your packaging line—you'll see why almost overnight this amazing anti-stick material has become a necessity in the modern high-speed packaging field!

PRICES: $ 2.00 Per Sample Can
$ 18.00 Per Unbroken Dozen
$197.40 Per Unbroken Gross

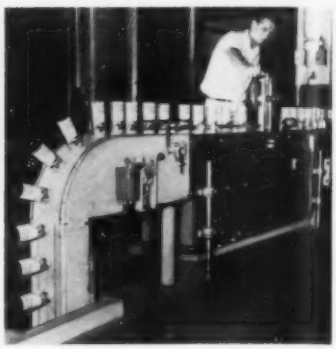
Delivery FREE Anywhere in the U. S. A.

Still lower prices on larger orders shipped in one gross lots on any schedule you request.

INJECTION MOLDERS SUPPLY CO.
3514 Lee Road Cleveland 20, Ohio
WYoming 1-1424

Magnetic conveyor belt

By means of a new magnetized conveyor belt, empty metal containers at Lever Bros.' Edgewater, N. J., plant now travel down a 90-deg. turn and make a perpendicular run to the floor below, where the cans are filled with dessert topping.



Cans, held securely in position by magnetic conveyor, travel to floor below.

The system is reported to require only a very limited plant space and is said to deliver the containers without marring their exterior finish.

This conveyor installation illustrates the effective use of magnetism in a packaging operation. It consists of a 7-in. Neoprene-impregnated belt having lateral stiffness, with continuous, permanent, non-electric magnetic units used as a slider bed. The magnetic units exert a powerful magnetic action that holds the cans securely, without change in their relative positions.

Cans are delivered to the coding machine on the fifth floor of the plant and, after they have been dated, travel to the fourth floor for filling. The cans are held securely in place even when starting and stopping the belt and at normal operating speeds of 90 cans a minute.

SUPPLIES AND SERVICES: Belt conveyor by General Conveyor Co., Long Island City, N. Y., using "Magna-Rail" units by Eriez Mfg. Co., Erie, Pa. ●

Cautionary label bill

A model "Hazardous Substances Labeling Bill," designed to regulate the labeling of consumer packages containing hazardous substances, has been prepared by representatives of four trade associations: The Manufacturing Chemists' Assn., Inc., the Chemical Specialties Mfrs. Assn., the National Paint, Varnish & Lac-

quer Assn. and the American Petroleum Institute.

The bill has been formulated as a model for either Federal or state legislation. It is reported to be consistent with existing state legislation and with the pattern of regulatory legislation in similar fields at the Federal level. It applies to packages of hazardous substances intended or suitable for household use, which will include not only packages for use in the home, but also packages for use in schools, hospitals, apartment and office buildings, hotels and by restaurants and similar types of institutions.

The bill requires use of the word "poison" on substances defined as highly toxic; the name of the hazardous ingredient, which will facilitate treatment in case of accidental injury; a statement of the hazard and measures to be avoided in handlirg, use and storage of the product, and a statement to the effect that the product must be kept out of reach of children.

Copies of the proposed bill may be obtained either from the Manufacturing Chemists' Assn., Inc., 1825 Connecticut Ave., N.W., Washington 9, D. C., or from the Chemical Specialties Mfrs. Assn., 50 E. 41 St., New York 17. ●

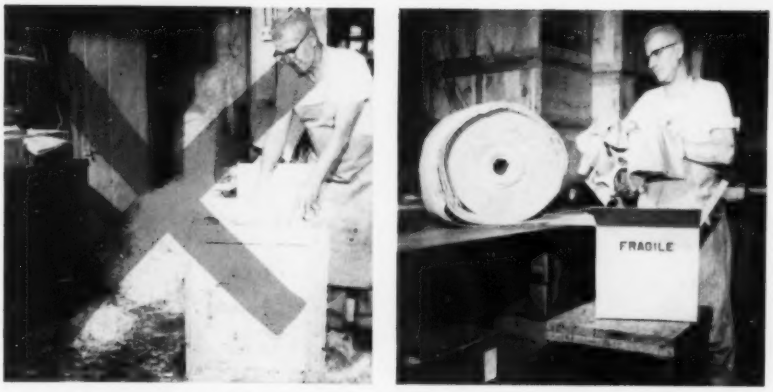
King-size plastic bags

Huge coils of bead wire produced by the National-Standard Co., Niles, Mich., are being protected from corrosion by bagging in polyethylene. The technique includes drawing a vacuum after the coils are bagged and inserting a dessicant on the inside of each bag.

After final inspection, the coils are set inside the bag, two high on a one-way pallet, and air is withdrawn from the bag by a vacuum pump. This package is then wrapped in corrugated board and finally steel strapped to the pallet.

A six-week test of exposure to extremely high humidity has shown no corrosion, the company reports. In addition, actual field tests in high-humidity atmospheres are said to demonstrate that the vacuum in the polyethylene bag acts as an effective vapor barrier to retard corrosion of the metal product.

SUPPLIES AND SERVICES: Polyethylene bags by Arcon Sales & Engineering Co., Plainwell, Mich. ●



A cleaner, faster operation resulted as International Equipment Co., Boston, switched from excelsior (left) to Cel-Fibe wadding (right) to wrap motors, parts, test tubes, and dynamically balanced instruments in its line of precision centrifuges for laboratory uses.

CEL-FIBE® protective packaging doubles output, increases safety

"Cel-Fibe cellulose wadding is the best packaging material we have ever used," says C. Clifford Hodge, production coordinator for International Equipment, leading supplier of laboratory centrifuges, citing these improvements:

Savings in time, labor. An operator packs double the amount—Cel-Fibe wrapping takes only half as long.

Savings in materials. With Cel-Fibe, one carton holds as much as was formerly packed in two cartons or a wooden case. Cel-Fibe ends the need for separators to partition tubes, fragile parts, and glassware.

Savings on storage. Wadding, paper, and other packaging materials are kept with space to spare in a room that had previously been set aside for storing a ton of excelsior.

Savings in shipping weight. Cel-Fibe permits use of fewer, lighter cartons.

Savings in maintenance. Apart from easier handling, non-shredding and non-powdering Cel-Fibe leaves no dust in the air or dirt on the floor, reduces clean-up time . . . also makes it easier, faster, and less messy for customers to unwrap orders.

Savings on returns. Low-sulfur and neutral-pH Cel-Fibe guards metals from corroding and surfaces from marring, avoids return of centrifuges bent or unbalanced in transit.

Your packaging problems can probably be lessened by learning how "success is certain with Cel-Fibe" in meeting military specifications and civilian requirements for cushioning and surface protection. Cel-Fibe is always available, when and as you need it. For more information—*write, wire, or phone:*

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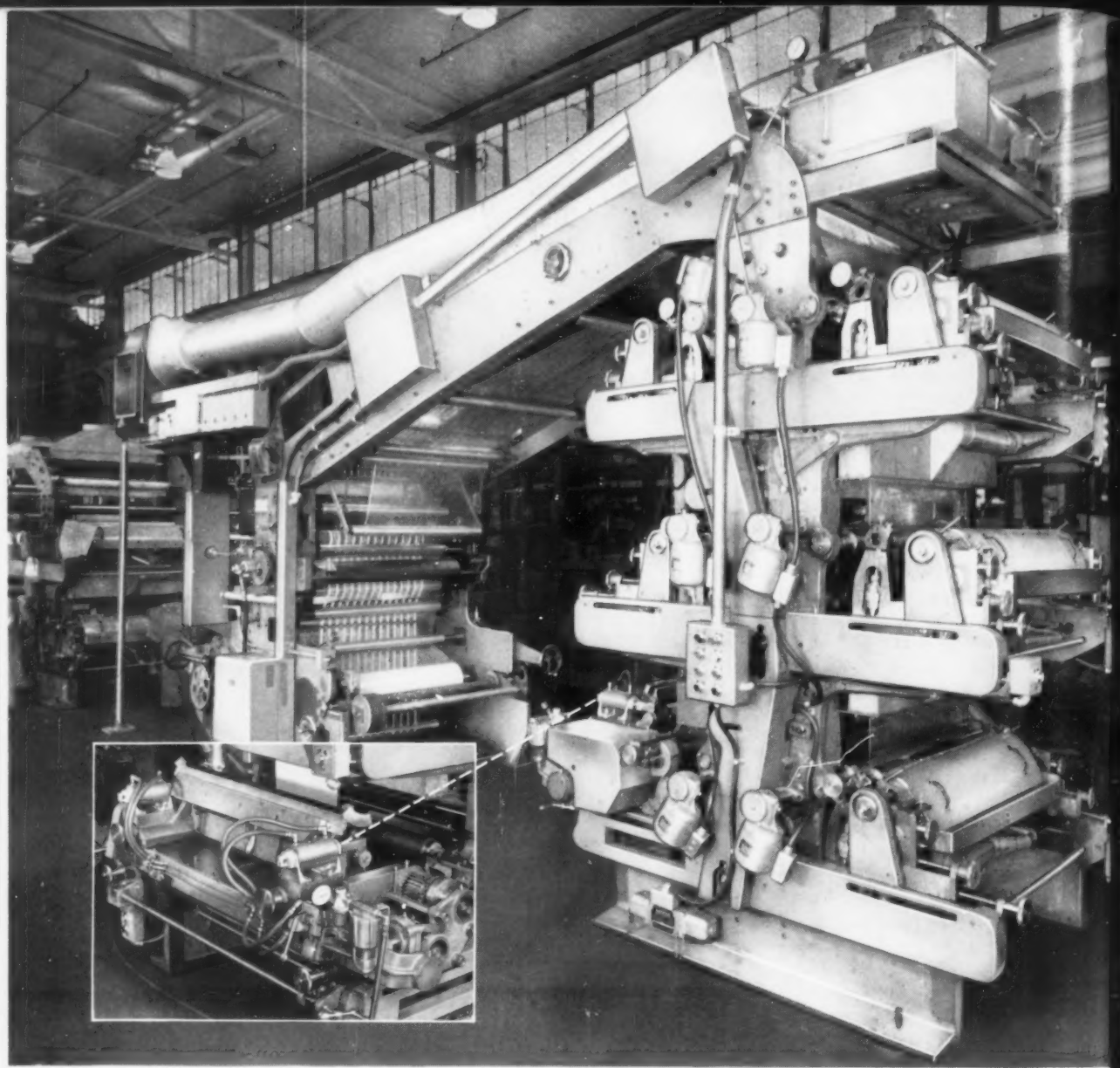

The Cellu-Craft Products Corporation of New Hyde Park, N. Y., recently installed their ninth Kidder Filmprinter — a revolutionary press engineered to meet the requirements of Cellu-Craft's national customers for high quality, flexible packaging materials. Inset shows the gravure unit on this combination flexographic-gravure Filmprinter.

Flexographic?...Gravure?...This Filmprinter is both!

For the first time, Kidder has coupled flexographic and gravure printing in a specially designed filmprinter for cellophane and polyethylene. This provides an intermediate, moderately priced step between flexographic and gravure printing.

When a Kidder Press goes into action for you it will be set up and checked by Kidder Performance Engineers, who will also show your pressmen how to keep operation at top efficiency . . . *Kidder brings you this expert service on a continuing basis, year after year.*

Contact Kidder Press Company, Inc., Dover, N. H. Eastern Sales Office: Empire State Bldg., New York 1, N. Y. Mid-West Sales Office: 400 Washington Bldg., Madison 3, Wisconsin. West Coast Representative: Bojanower Machinery Service Corp., 5270 E. Washington Blvd., Los Angeles 22, Calif.

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Flexoprinter,® Letterpress, and Gravure Presses, Slitters and Rewinders

Saving with plastic bag

With the adoption of polyethylene film bags for its products, a twofold packaging problem has been solved by Swiss Farms, Inc., Philmont, N. Y., one of the country's largest manufacturers of organic potting and planting soil. Solving these problems is expected also to save the company considerable money, according to Rene Weigelt, Swiss Farms' president.

The problems: Other packaging materials frequently ripped in the high-speed, automatic machines needed to package the daily high-tonnage volume. Dealers were complaining that bags rotted and broke on their shelves due to the corrosive action of soil nitrates.

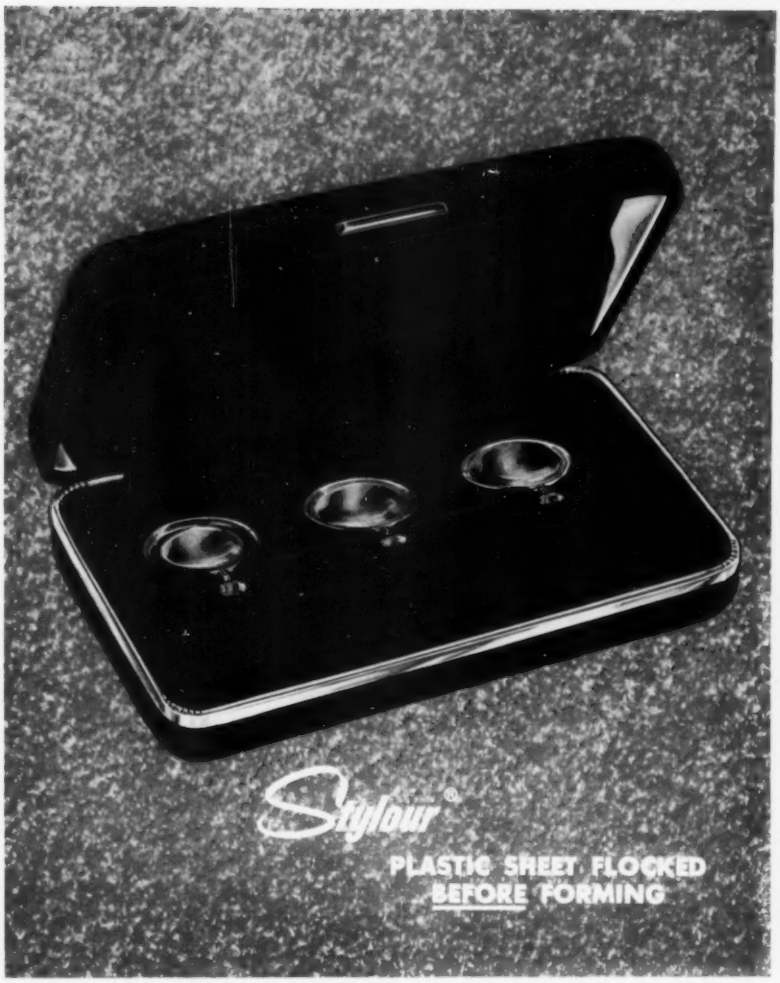
With the adoption of polyethylene film, breakage rate of bags in the packaging machines has been reduced to less than 1%, resulting in a great saving of labor. Polyethylene, being impervious to the acid action of soil nitrates, has minimized bag breakage at retail outlets—supermarkets, department and variety stores, garden centers, etc.—where the product is sold.

Swiss Farms uses 2-mil high-impact polyethylene for bags weighing up to 6 lbs. and a 3-mil film for those weighing from 6 to 25 lbs. Bags are pre-printed with company name and package contents. The film's high transparency permits excellent product visibility, reported to be a plus factor in the company's merchandising program.

SUPPLIES AND SERVICES: "Visqueen" film by Union Carbide's Visking Co., Plastics Div., Terre Haute, Ind. ●

Packaged beer

With per capita beer consumption falling, brewers are missing a potentially high-volume opportunity by not fully promoting the sale of multi-packed beer in supermarkets, which are now doing much less than a normal share of beer business. Those are principal findings in a study completed by the Armstrong Cork Co.'s Glass and Closure Div. The survey also showed that beer is pricing itself out of the market. One conclusion was that price can be reduced only by a cut in the basic cost of packaging beer. The study documents the opportunities for stepping up supermarket beer turnover. ●



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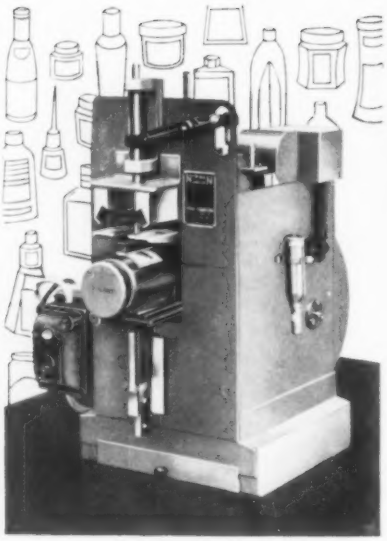

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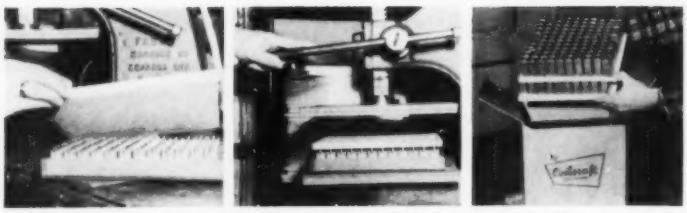

Prongs on electric items for the radio and TV industry protected by plastic.

Expanded polystyrene trays for delicate parts

The Coilcraft Co., Cary, Ill., makes transformer coils and other small and delicate parts for the radio and television industry. The problem of safely handling and shipping such sensitive items has been satisfactorily solved by the use of expanded polystyrene plastic both in processing and in shipping.

In one application, the company assembles a layer of 116 parts, each with delicate prongs extending from the ends (see illustration). An expanded polystyrene tray is placed in position over the grouped parts and pushed down in a hand press, providing maximum protection for the prongs. The 116 parts are then handled as one unit within the factory and during shipment, in which the polystyrene tray itself becomes an integral part of the shipper.

The packager reports minimum breakage and damage because of polystyrene's shock absorption, and reduced costs and greater efficiency because of its light weight and ease of handling. Moreover, it is said that the shipping cartons accommodate up to 15% more items placed on these polystyrene trays than was possible with the company's previous packaging methods. Customers reportedly re-use the trays for materials handling in their own plants.

SUPPLIES AND SERVICES: Polystyrene trays made by Glo-Brite Foam Plastic's Products, Polyfoam Packers Div., 6415 N. California Ave., Chicago 45, using Dow "Styrofoam." ●

Packages outstanding in typographic arts

Packaging on display in Annual Exhibition of Design in Chicago Printing.

The 32nd Annual Exhibition of Design in Chicago Printing, sponsored by The Society of Typographic Arts and currently on exhibit in Gallery 11 of the Art Institute of Chicago, includes three outstanding pieces in the packaging field:

Aerosol containers and display for Abbott Laboratories' Vi-Daylin, designed by Carl Regehr.

Carton for Burgess Cellulose Co.'s Boat Bailer Sponge, designed by Hal Heater of Dave Chapman, Inc.

Bottle label for Hinckley & Schmitt's Corinnis water, designed by Bud Knight and Lawrence Muesing.

Judges who selected 99 outstanding pieces from 878 entries were Lee King, creative director, Edward H. Weiss Advertising; Mr. Regehr, design director, Bert Ray Studios, and Edward Katz of the Crafton Graphic Co. ●

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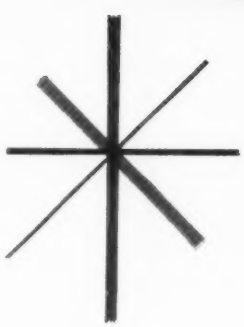

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"What are the specific factors that must be taken into consideration when *planning a package?*"

"Does *waxed paper* offer good resistance to flavors, odors and gases? Does polyethylene-coated paper?"

"What's a simple way *of identifying* the various films?"

"Among paper packages, what are the unique advantages offered by *set-up boxes?*"

"Why are *styrene containers* now able to compete costwise with disposable treated-paper containers?"

"How does the *nitrogen-propelled aerosol* open new horizons for dentifrices, barbecue sauces, drugs, etc.?"

"In selecting the right *capping equipment*, when should a straight-line machine be selected? When can a straight-through hookup be used? What are the virtues of a 'synchronized line'?"

"What are the special advantages of *printing* by letterpress? Offset? Flexography? Roll leaf?

"What are the names of some *contract packagers* in northern New Jersey?"

"From which companies can *plastic bottles* be obtained?"

What's your question?

*The MODERN PACKAGING Encyclopedia Issue is the thirteenth issue of MODERN PACKAGING magazine—and is received by paid subscribers as part of their regular subscription. America's "mass packager" executives use it as their guide to package design, planning, production, and procurement.

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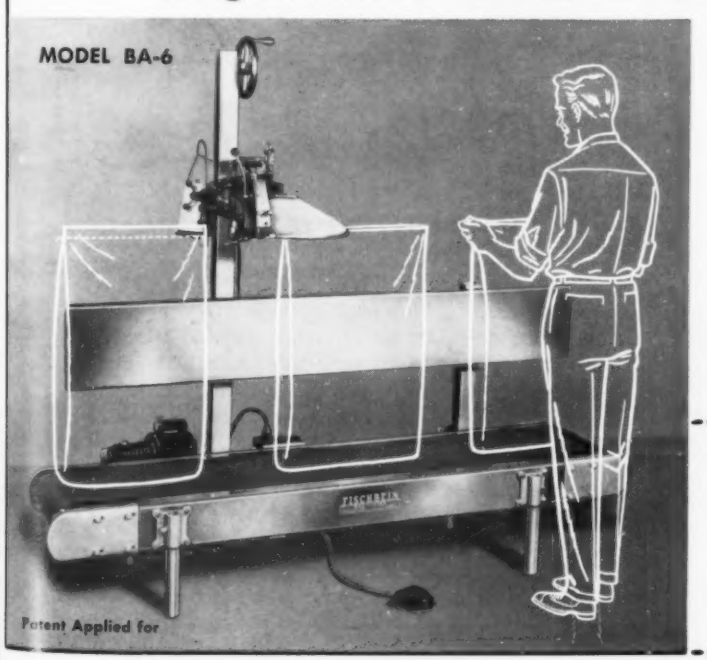

- Bag activates and completes sewing operation automatically.
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- Sews at rate of 30 feet per minute.

An automatic closing unit. The bags themselves start the sewing operation when they reach the sewing head. After sewing is completed, thread is cut automatically and sewing action stops as conveyor belt continues to move bag.

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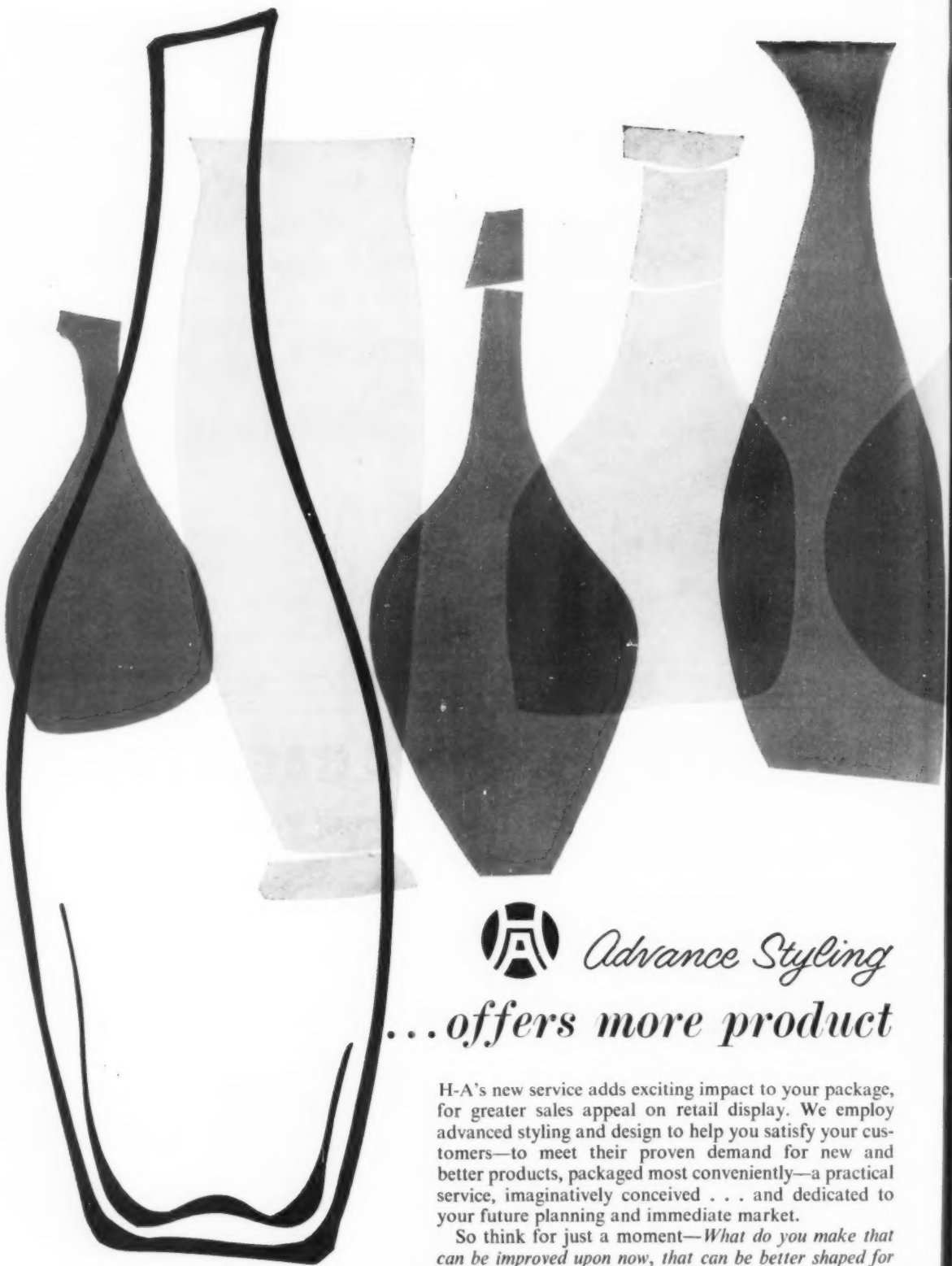

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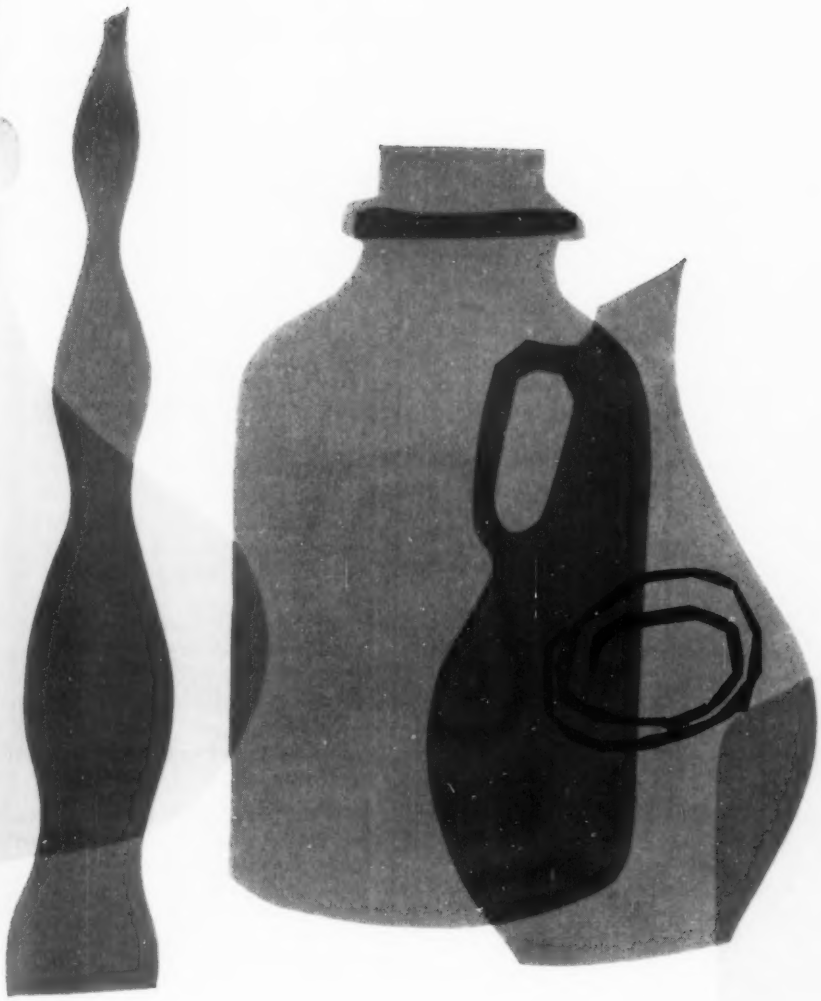
Write Wheeling, or ask your H-A representative how this practical, new service can be put to work for your products today!



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Liner for steel drums

Amchem Products, Inc., Ambler, Pa., uses steel drums to ship its Weedone weed killer and finds that the chemical-and-metal contact has no effect upon the product's properties. However, the packager did discover that insoluble metal salt particles, slowly formed by chemical reaction with steel, threatened to clog spraying nozzles, particularly if the weed killer is stored from one season to another.

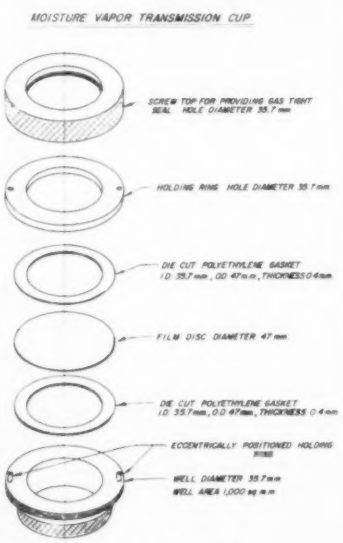
To solve this problem, Amchem is using steel drums and pails with a clear phenolic lining that reportedly keeps the product in perfect condition and prevents clogging of the sprays, used by county and state highway departments, farmers and public utilities.

SUPPLIES AND SERVICES: Lined drums and pails by Jones & Laughlin Steel Corp., Pittsburgh 30. ●

Simplified WVT cup

A new type of water-vapor-transmission cup has been developed for the flexible-packaging industry which is reported to be very reliable and simple to use.

The simplified WVT cup has been in successful use for some time by The Dow Chemical Co., Midland, Mich., for testing film materials. It was developed by W. R. Park of Dow Chemical Co.'s Plastics Production Laboratory.


MOISTURE VAPOR TRANSMISSION CUP
SCREW TOP FOR PROVIDING GAS TIGHT SEAL HOLE DIAMETER 35.7 mm
HOLDING RING HOLE DIAMETER 35.7 mm
DIE CUT POLYETHYLENE GASKET I.D. 35.7 mm, O.D. 47 m.m., THICKNESS 0.4 mm
FILM DISC DIAMETER 47 mm
DIE CUT POLYETHYLENE GASKET I.D. 35.7 mm, O.D. 47 mm, THICKNESS 0.4 mm
ECCENTRICALLY POSITIONED HOLDING RING
WELL DIAMETER 35.7 m.m
WELL AREA 1,000 sq m.m

Sketch of simplified WVT cup.

The accompanying sketch shows how a gastight seal of the film speci-

don't let your sales manager be a

"PACKAGING ORPHAN"

In your company he may be called the Sales Manager . . . or the Merchandise Manager . . . or the Distribution Manager; the title isn't important. The chap we're talking about is the one whose interest in the packaging function sometimes may be considered secondary, while the successful completion of his duties depends in a significant measure on the appearance of your company's packages and the protection they give to your products.

If this man, whatever his title may be, doesn't get his own personal copy of Modern Packaging every month to keep him up-to-date, you've a "packaging orphan" on your hands. While he should be, he probably *isn't* up on all the latest techniques of package merchandising, on how to package to obtain sales in multiple units, on what's "hot" in protective and decorative packaging. . . .

Modern Packaging isn't a cure-all for this man, but it will keep him posted on the important packaging developments he ought to know about. A twelve month subscription—including the famous annual Encyclopedia Issue—for him costs only $7.00 in the United States and Canada, $25.00 elsewhere. Write today; we'll enter his subscription immediately and bill your company later.

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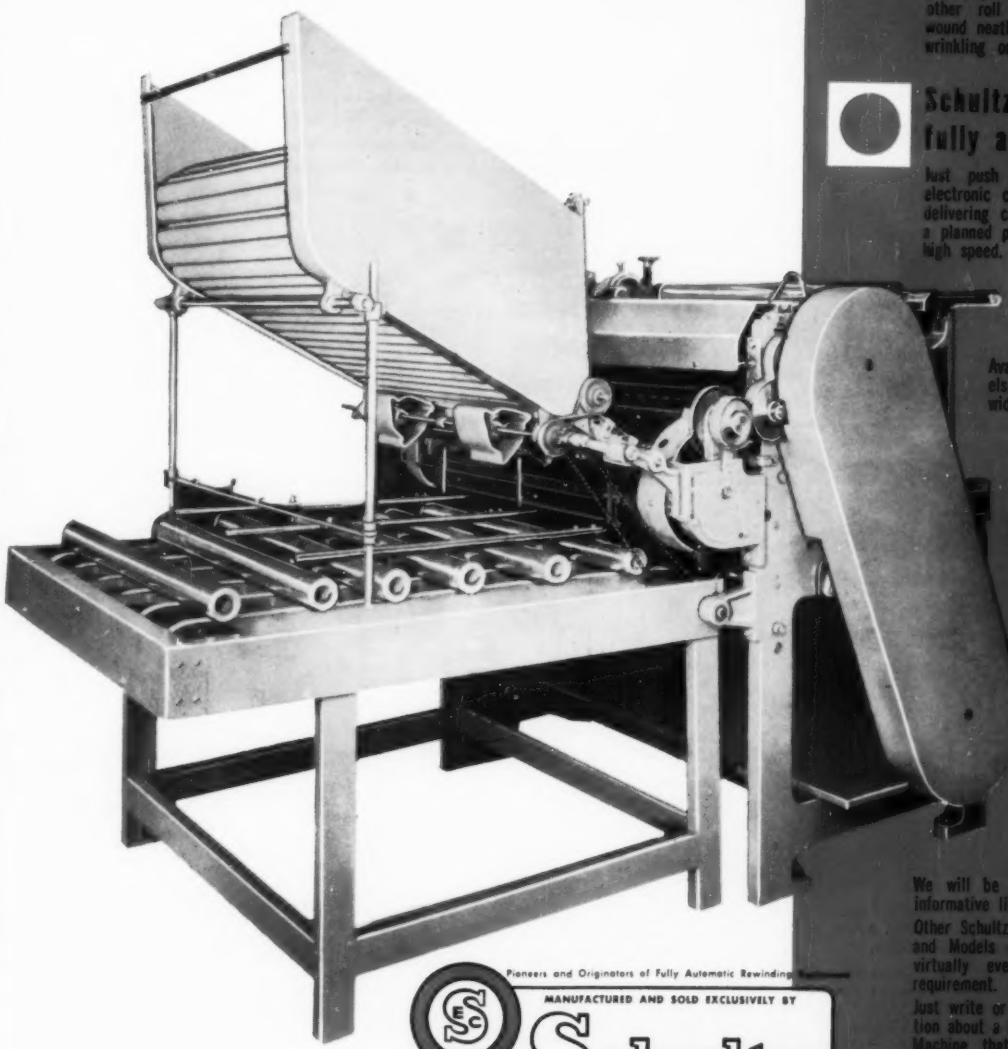

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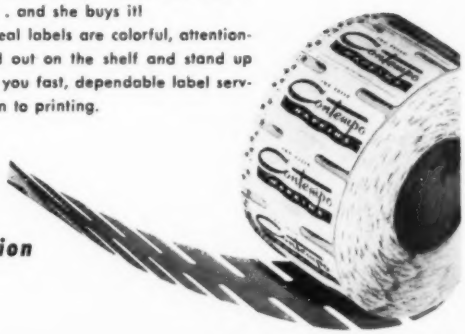

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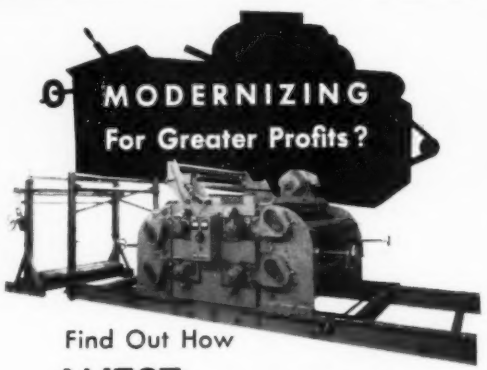

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men is obtained with the new cup. Two polyethylene gaskets keep the film in a gastight seal when the holding ring is tightened down, using only hand pressure on the screw top. The holding pins prevent the development of torsional tearing forces in the film sample during tightening of the screw top. Film samples, it is said, can be mounted rapidly and reliably using this technique.

Once the sample is mounted on a cup containing a suitable desiccant (eight mesh calcium chloride), measurements are made in the same manner as with all other water-vapor-transmission cups. The cup is placed in a constant-humidity chamber, then removed and weighed at intervals until the weight increment per unit time becomes constant. When this equilibrium state is reached, the water-vapor transmission may be calculated in grams of water transmitted through the film per 24 hrs. per square meter, or in any other convenient unit. It is pointed out that any report on WVT rate so obtained should, of course, be accompanied by a description of the film material, its thickness, the test conditions of temperature and humidity, and a description of how the desiccant was used.

SUPPLIES AND SERVICES: Simplified WVT cup by Gardner Laboratories, Bethesda 14, Md. ●

Winning set-up boxes

[*Continued from page 122*]

House of Men, Inc., "His" men's toiletries boxes. No honorable mentions.

Sporting goods — *Second award:* Taylor Box Co. for United States Rubber Co. swim-caps box. *Honorable mention:* Congress Paper Box Co. for Cycloid Corp. "Micromatic" fishing-reel box.

Stationery and paper products— *Second award:* Jesse Jones Box Corp. for Damar Products Co. lap-desk stationery kit; designer, M. Hal Fenkel. *Honorable mention:* Friend Box Co. for Sullivan Bros. Holy Bible box.

Textiles — *Second award:* Old Dominion Box Co., Inc., for Fairfax Mills Martex Fleur-de-Lis gift boxes. *Honorable mention:* Specialty Paper Box Co. for Barth & Dreyfuss Royal Treasure gift-ensemble box; designer, Tinsley T. Jepson.

Toys and games—*Second award:*

VERTROD

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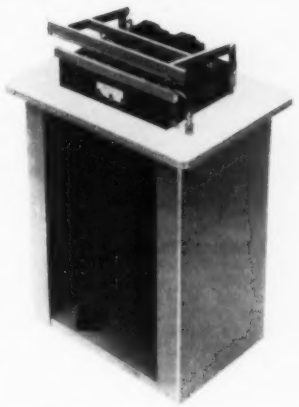

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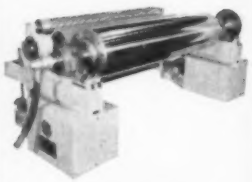
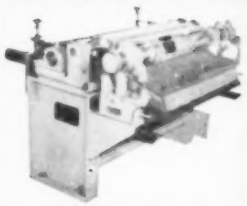


PL-600 POLYETHYLENE



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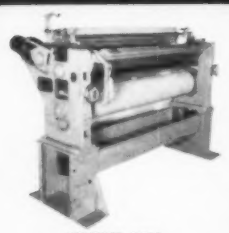

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Presque Isle Paper Products for Girard Mfg. Co. H-O train set; designers, Ken Keller and Dan Wingerter. *Honorable mention:* Ellegant Paper Box Mfg. Co. for Cadaco-Ellis, Inc., Noah's Ark game box; designer, C. Leslie Crandell.

Wearing apparel (women's)—*Second Award:* Palmetto Box Co. for Piedmont Shirt Co.'s "Wings" companion sportshirts box. No honorable mentions.

Wearing apparel (men's)—*Second award:* Tobin-Howe Paper Box Co. for Ashear Bros., Inc., Fleur-de-Lis men's handkerchief box; designer, Benjamin D. Katz. *Honorable mention:* Tobin-Howe Paper Box Co. for Ashear Bros., Inc., Christian Dior men's handkerchief box; designer, Benito Catini.

Miscellaneous boxes—*Second award:* Friend Box Co. for Addison-Wesley Publishing Co. book presentation set; designed by Paul Cadorette. *Honorable mention:* Grigsby Bros. Paper Box Mfrs. for Smith Printing Company Brokers, Inc., pricing-signs box.

Surface design and execution

Second award (also *honorable mention* in promotional boxes): Specialty Paper Box Co. for Max Factor sales kit; designer, Clarence H. Belfry.

Honorable mention: Artcraft Paper Box Co. for Bel Canto stereophonic record and tape boxes. Newark Paper Box Co., Walter P. Miller Co. and Kiernan-Hughes Co. jointly for Ciba Pharmaceutical Products, Inc., family of drug mailer. Karl Voss Corp., Div. of Shoup-Owens, Inc., for Haviland Laboratories Ann Haviland perfume box. Chamberlain Paper Box Corp. for Vermont Crossroads Store retail glove boxes. Wilson Paper Box Co., Inc., for A. H. Robins Co., Inc., pharmaceutical promotional boxes.

Superiority of construction

Second award (also *second award* in promotional boxes): Stecker Paper Box Co. for Ross Roy, Inc., Plymouth promotional sales kit.

Honorable mention: C. Albert Sauter Co., Inc., for McNeil Laboratories, Inc., pharmaceutical presentation box; designer, Edwin R. Steel.

Display boxes

Second award (also *first award* in rectangular cosmetic boxes): Karl Voss Corp., Div. Shoup-Owens, Inc., for Park & Tilford Woody Glen perfume box; designer, Jack Mohr.

Honorable mention: Walter P. Miller Co., Inc., Niagara Box Div., for Kentile, Inc., vinyl tile display box. George H. Snyder, Inc., for Johnson & Johnson "Gift for Baby" box; designer, Frank P. Coons. Artcraft Paper Box Co. for Bel Canto stereophonic record and tape boxes.

Transparent boxes

Second award: The Warner Bros. Co. for Prince Matchabelli "Perfume Honors" box.

Honorable mention: Dennison Mfg. Co. for Scheaffer pen box. •

What's happening to the 5 & 10?

[*Continued from page 96*]

variety stores want shipping cases that are quick to identify. They like tear-strip shipping cartons that can be opened without the use of a tool. They want packages arranged in shipping cases so that they can be quickly price marked by stock boys—if not pre-priced. For the slow-moving merchandise, they express a preference for split cases.

Not to be overlooked is the subject of private or store-controlled brands. This trend is particularly noticeable in soft-goods lines and others where no well-established brands dominated the store previously.

The private label is one means the variety store has to meet price competition from other outlets—the supermarket, the drug store, the hardware store, the department store, the discount house—which may be selling similar lines of merchandise right next door to them in the same shopping center.

With its private label, the variety chain can offer many items at a more attractive price than nationally advertised brands in competitive types of retail outlets.

And by putting its own name—with a good reputation behind it—on an attractively designed package, it has the opportunity to build acceptance for merchandise which it handles exclusively.

Opinions differ on the private-label question, of course, but, said one

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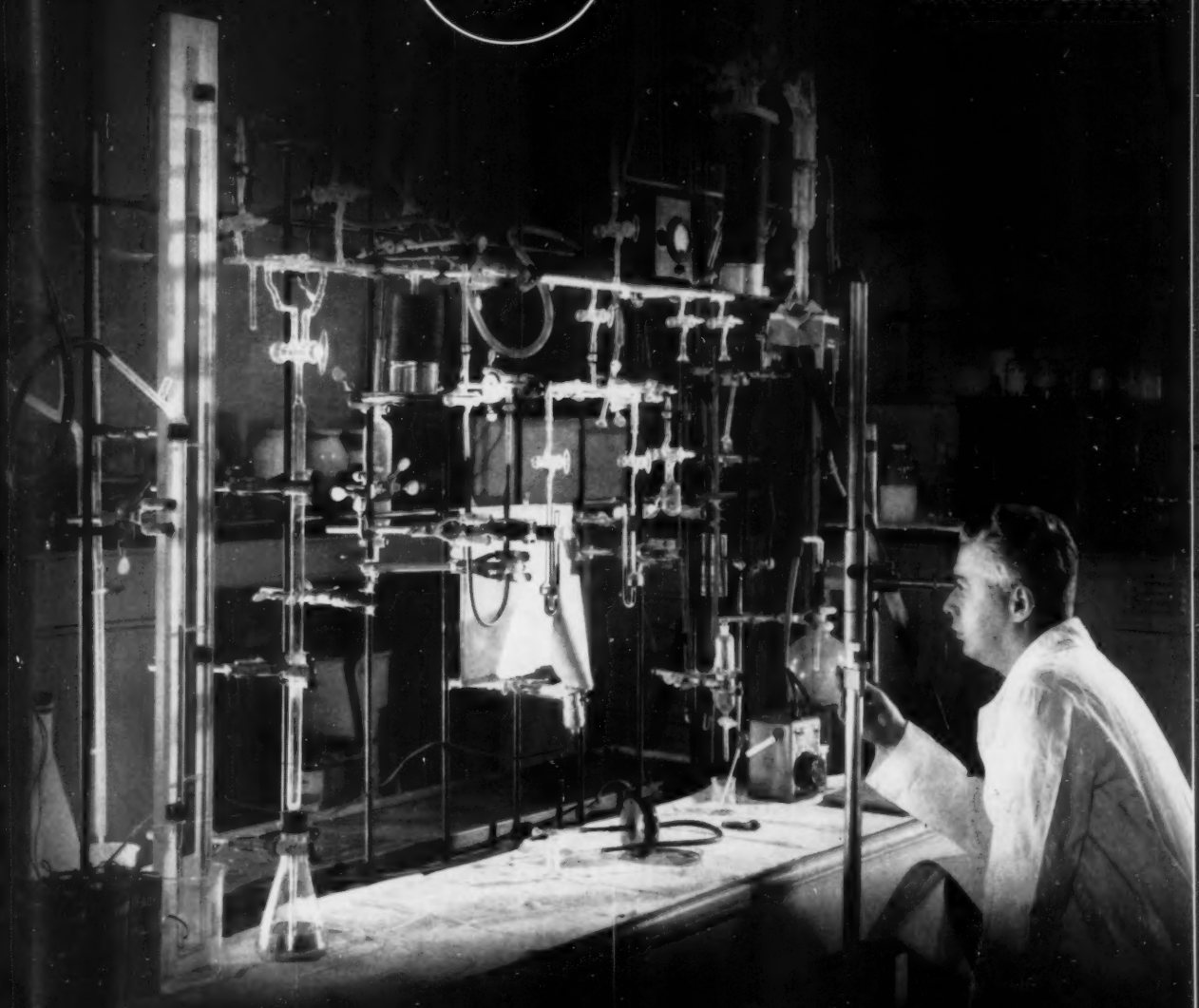

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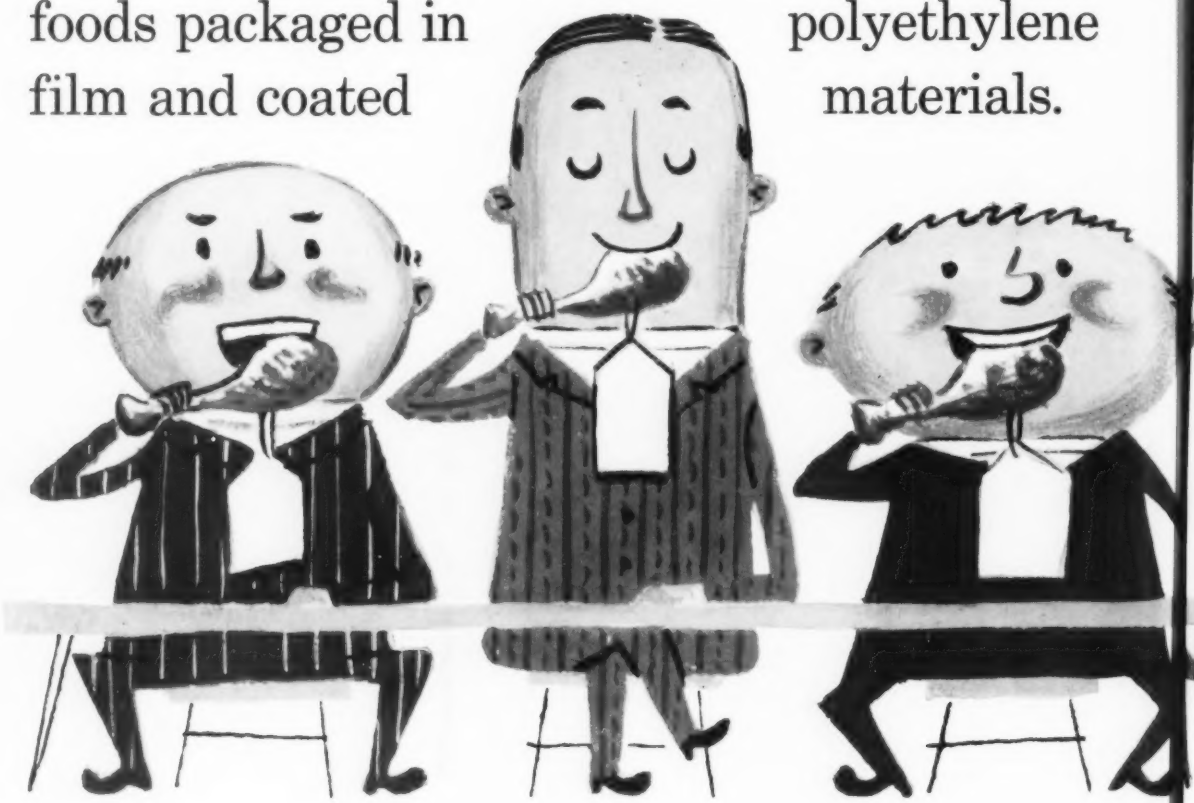

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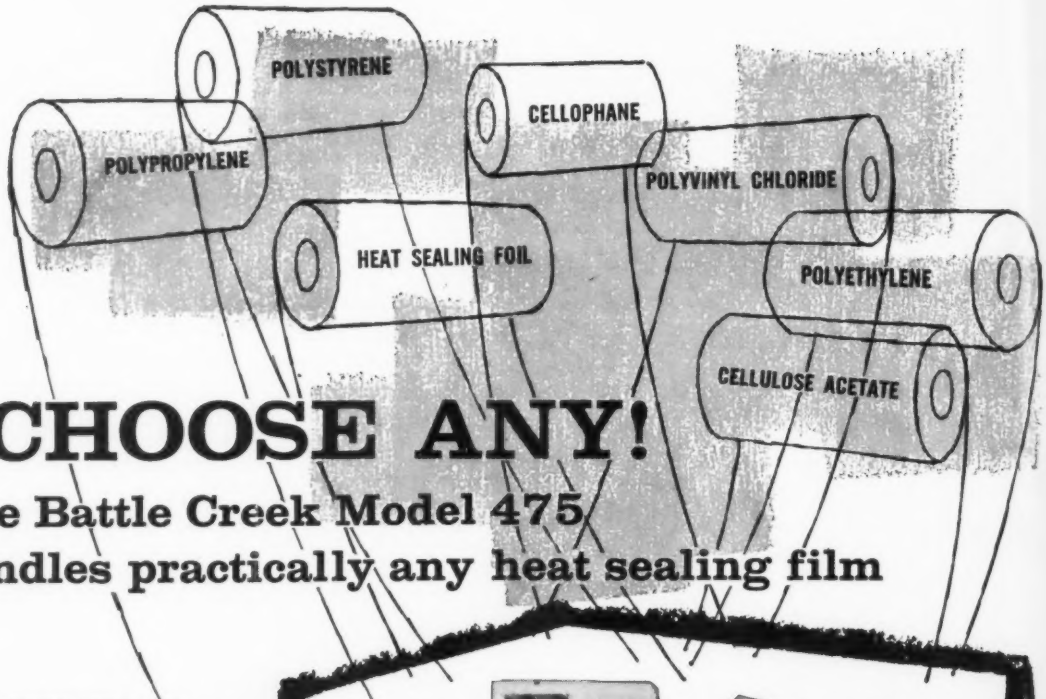

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The Battle Creek Model 475 handles practically any heat sealing film

PACKAGES LIKE THESE . . . now produced on former overwrapping machines can be efficiently handled by the Model 475— Typical applications: textile packages (underwear, handkerchiefs, pillow slips, etc.); paper products such as flat stationery, envelopes, napkins, bakery products, such as hot dog or hamburger buns, large cakes, specialty items; cartons; open top trays.

This truly all-purpose machine handles practically any heat sealing film over a wide range of products at production speeds up to 75 per minute. With the Model 475 you automatically anticipate future packaging opportunities offered by heat sealing films yet to be developed while enjoying the economies current films offer your packaging operation. The Model 475 wraps articles within the range of 5" to 12" lengths, 3" to 8½" widths and ¼" to 4" heights and sizes are converted easily within 15 minutes or less. A special 5" to 9" range is available for wider packages and for bundling purposes. Optional equipment is available if desired. An investment in the Model 475 is an investment in the future . . . its versatility will amaze you.

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The Model 475 is "Continuous Flow" engineered to handle changes in wrapping materials with a minimum of effort, time and materials. Changeover from one type of soft film to another does not require the purchase of additional equipment . . . actually adjusting the electronic heating controls to the range appropriate for the heat sealing of the new material is all that is required. Battle Creek's exclusive new "Thermo-pad" sealing system has been tested on more than 40 different formulations of plastic overwraps, and handles all with equal ease. Also handles regular cellophanes, heat sealing foils, etc., equally as well as the newer plastic films.

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variety-chain executive. "There is nothing we would like better than to stock every item under our own label."

Private brands are well on their way in the nation's food stores. And in drug lines, the private label "may be the really hot question of the year," according to *Drug & Cosmetic Industry*, which points out editorially that many well-entrenched private-brand toiletries were wiped out during the '40s only by the hectic rush for essential ingredients and packaging materials during World War II. "Conditions may be slowly reverting," the editorial states.

In some chains, packaging activities are not yet organizationally formalized. One of the variety-store-field's leading sponsors of better packaging is L. C. Shockley, vice president of McCrory Stores Corp. But there seems to be a trend toward establishing separate packaging departments. F. W. Woolworth designates B. W. Miller in charge of packaging.

W. T. Grant Co., the country's second largest variety chain in point of sales, has a full-time packaging manager, Howard Schiff, in charge of the chain's private-brand packaging.

His duties are very much like those of the Packaging & Informative Labeling Division of Sears, Roebuck. He specifies packaging constructions, materials, graphic design and, in the majority of cases, the packaging-material supplier. In this way, the manufacturers producing an item for the chain obtain packaging materials that give them the advantage of chain-store quantity purchasing.

He has been instrumental in reducing the chain's formerly long list of diverse brand names, most of which now feature prominently the store's own name, such as Grant Crest for domestics, Grant Maid for houseware products, Grant Togs for children's apparel—thereby enabling customers to associate their purchases immediately with the store's name on the package. He is keenly interested in improved package design to upgrade the over-all appearance of Grant stores, such as specifying an identifying blue wrap for all shelf packs to give a neater look when such stock has to be kept where it is seen in selling areas.

Similar packaging programs are getting under way in other chains. The J. J. Newberry Co. has been redesigning its private labels to incorporate prominently the name Newberry on everything from hair nets to dress shirts, according to J. J. Cathell of that chain. S. H. Kress has commissioned an independent designer to create a new store image to be followed by packaging that strengthens the image.

As they get deeper into the selection of packaging materials, variety-store packaging men have a serious criticism of suppliers' salesmen. Too many are order takers, they say—not equipped to give the kind of technical information needed with respect to the properties of packaging films and materials, or methods of production.

The packaging problems of the variety stores are as numerous and complex as the thousands of items they carry. But as the original concept of the 5 & 10 emerges into what may well be department stores for the masses in the future, it is easy to see how packaging must, of necessity, assume an increasingly greater influence on the economics of American retailing. ●

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ABRASIVE DIVISION AT CLEVELAND

Packaging Show report

[*Continued from page 128*]

um alloys, a 35% heavier gauge is needed to obtain a strength equal to tinplate cans. Aluminum now is most logical for products which do not need heat processing and for aerosol containers. American Can will offer a 6-oz. seamless impact-extruded aerosol can later this year.

Despite the problems it presents, aluminum is likely to capture 5% of the can market within the next few years and as much as 20% by 1970. Price will be the determining factor in aluminum's future as a can-making metal.

Horizons for Aerosols—R. J. HENNESSY, *department head, packaging development, Lederle Laboratories Div., American Cyanamid Co.* Although some 242 different kinds of products are now being packaged in aerosol containers, the surface has barely been scratched.

Consumers will willingly pay more for products which are pressure packaged, but despite strong consumer acceptance for aerosols, there is still need for much more consumer education in their use. Following is a checklist for potential users of aerosols: (1) be sure you have a good product and know exactly what it will do; (2) decide whether it should be dispensed in a spray, foam or liquid and the type of valve needed; (3) search for the proper propellant and be certain of product-propellant compatibility; (4) base valve and container-material selection on results of this research; (5) decide on package design, color, cap, etc., and conduct extensive physical tests; (6) make a thorough over-all cost study whether you package the product yourself or employ a contract packager (many good contract packagers can do a better, more expert job than you can and they also usually warehouse the product for you); (7) run scientific market tests; (8) then—and only then—proceed with production.

Pressure packages must be of the highest quality so that users will want more. When all the rules are followed, aerosol packages can have astonishing sales success.

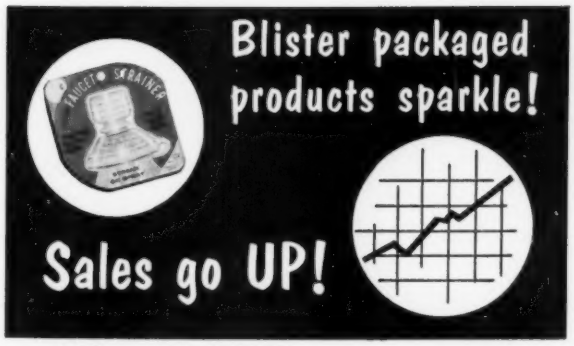
Redesign Economies—The Westinghouse "Wring-Out"—HAROLD J. ANDERSON, *packaging research engineer, headquarters, manufacturing planning, Westinghouse Electric Corp.* Each year Westinghouse sells $2 billion in products, varying in weight from a fraction of an ounce to millions of pounds, in substance from liquids to powders to solids of all types, including some that are radioactive. It spends more than $14 million yearly in packaging supplies. Westinghouse recently launched a company-wide "wring-out" program to reduce packaging costs to the minimum needed for a satisfactory packaging job. Based on the areas explored, the following advice was presented as applicable to high-volume package users.

Use less of present material. As an example, instead of 1-in. #3 common spruce boards used in large quantities for crating, Westinghouse now buys approximately 1½-in. boards and saws them in half to $^{11}/_{16}$-in. width—suitable for nearly all application and costing ¼ less.

Use better methods. Westinghouse replacement headlamps are packaged in single-face corrugated cartons. A stiff piece of fibreboard was formerly inserted to keep the package from opening. Today the company uses a machine which moistens and attaches gummed tape to the boxes automatically at substantial labor and material savings.

Reduce expenses. Packages having maximum efficiency with minimum size and weight result in lower product-damage rate, require less storage space, cost less to ship. Westinghouse's careful re-evaluation of packaging procedures extends to personnel in all departments and is saving the company many thousands of dollars every year.

Display Card Packaging—JOHN A. KEENAN, *president, Standard Packaging Corp.* Display card packaging has developed rapidly in recent years and offers many packagers potential sales gains and economies. They lend themselves to many different levels of packaging production, from small runs to large, and highly automated production schedules; they are practical for products demanding frequent change. Cards that snap onto blisters or bubbles without heat sealing may be practical for small or intermittent runs. While



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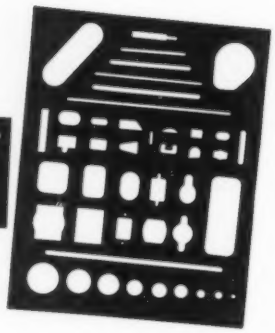

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card packs are thought of as a retail merchandising tool, they also offer protective and functional advantages for industrial products.

While blister and skin packs have limitations, they do tend to upgrade practical products. Generally they are not suited for luxury items, since they have few quality connotations. There is some danger that card packs are labeling themselves as "cheap" by poor design, color and package quality. Properly used, blister and skin packs on cards are indicated when (1) there is a need for rigid or semi-rigid transparent and space-saving packages; (2) there is a need to glamorize a utilitarian product; (3) the product itself has an unusual shape or contour; (4) there is a need for frequent product—and hence, packaging—change.

Manufacturing and handling

Chairman, JOHN A. WARREN, *packaging advisor, Baldwin, N. Y. Associate chairman*, EDWARD J. MONAHAN, *head, packaging research, division of laboratory, National Biscuit Co.*

Picking and Packing Service Parts—F. H. WILEY, *general supervisor, materials handling research, International Harvester Co.* Ninety-five per cent of our products are related to motive power equipment. Most of them are for industrial or farm use. Service parts must be readily available to users at all times so that equipment may continue operation.

We have two major types of installations, each of which requires a different system for handling of outgoing orders. A depot such as our Broadview Parts Depot in Chicago is an example of one type of operation. It is large enough and has a great variety of material that justifies mechanization to the point that carts attached to overhead conveyors are used for processing orders. When the cart reaches the storage area, it is removed from the conveyor and assigned to a man who picks the order into the cart. When the order is filled, the cart is attached to a conveyor that takes it to the packing tables. Here, specialists pack the parts and the order is processed and moved to the shipping department.

In other depots of smaller size, a different procedure is used. These depots have a smaller working force and the turnover of workers is less. It has been practical to train the men to both pick and pack. This eliminates the necessity of balancing the work load between pickers and packers, and puts responsibility on one person for assigned orders.

Military Packaging Requirements—ALBERT V. GRUNDY, *director, container division, Quartermaster Food & Container Institute for the Armed Forces.* Lt. Gen. James M. Gavin, when serving as Army chief of research and development, expressed the problem of modern logistics in a neat way: "Our war power really is the means we have, *times its mobility*. You can have everything in the world you might need to win a war, but if you can't get it there, you get second prize, which means you have lost." *That* is the essence of military obligations in regard to packaging.

The successful delivery of supplies to the highly mobile army of the future depends upon the following major requirements: (1) Packaging methods and materials must be related to the transportation systems employed and conditions prevailing at the user point in the field. (2) Lightweight, easy-opening packages, with minimum tare weight and cube, together with necessary protective packaging requirements. We shall have to examine, as never before, the environmental shipping and handling hazards of a new type of warfare.

Among the promising new Institute investigations are contour packages, flexible packages and Conex (container express) constructions.

Production Control—Work Order to Warehouse—LELAND R. SRIGLEY, *superintendent, general finishing division, Parke, Davis & Co.* In attempting to develop a better method for production control, we analyzed our paper-work flow through which production control is maintained. As a result, we obtained (1) standardized packaging terminology, (2) standardized specifications, (3) centralized control of specifications, (4) centralized control of materials and supplies, (5) reduction of paper work and follow-up by production supervision, (6) reduction of processing time,

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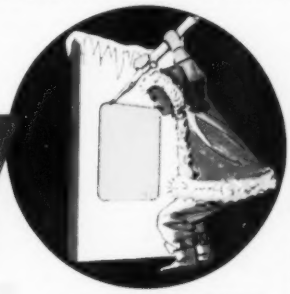

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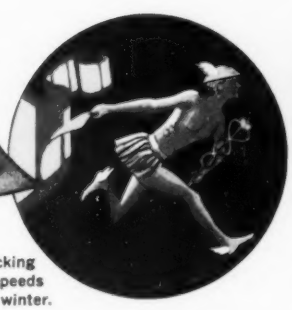
Avery's new GOLDEN adhesive provides a tight grip, permanently!



Can be stripped from backing tape at new high speeds . . . summer or winter.

Label edges hug the surface — won't peel or curl.

Avery's new Golden perma-grip Labels open the door to the wider, more effective use of pressure-sensitive labels.

Many applications long considered *too* difficult for this type of label are now practical and economical. Easily and quickly applied to a variety of packaging surfaces — either flat, rounded, concave or curved . . . these new Avery Golden perma-grip Labels stick better and hold tighter to glass, plastic, wood, film, metal or paper — to *all* types of packaging materials.

Together with Avery's automatic Labeler they offer you a new approach — a new and better solution to your labeling problems. This time-saving combination makes Avery pressure-sensitive Labeling efficient, productive and profitable!

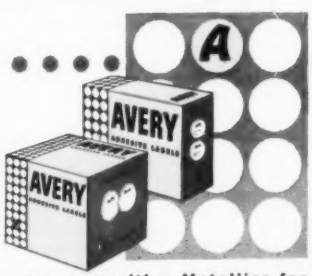
Write today for your FREE samples . . . try them on the surface you want labeled *permanently!*

AVERY LABEL COMPANY, Dept. 127
a division of *Avery Adhesive Products Inc.*
117 Liberty St., New York 6
608 So. Dearborn St., Chicago 5
1616 So. California St., Monrovia, Calif.

always ask for

AVERY LABELS

—what a difference they make



☐ Please send me samples, further information on Avery Golden Perma-Grip Labels.

Name_____

Company_____

Address_____

City_____ Zone____ State_____

★ Have you seen Avery's new pressure-sensitive Metallics for decorative trim, panels and identification plates?

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Exceptional printing makes the difference...

Helps make the sale!

- Printed or decorated up to 4 colors on crystal clear, transparent or opaque colors
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- 1/5 the weight of glass—greatly reducing ever-increasing shipping and handling costs
- Lightweight and shatterproof—with rigid wall protection
- Economical—with customer re-use value
- Also made of new high density polyethylene—Poly-Opal*. Are chemically inert, stain resistant and have lower permeability to moisture and gases than conventional polyethylene.

*T. M.

Write for full-color catalog, samples and prices.

LERMER PLASTICS, INC.

502 South Avenue
Garwood, New Jersey

PIONEERS AND SPECIALISTS IN PLASTIC CONTAINERS SINCE 1919

(7) reduction of inventories, (8) improved quality control.

By use of a properly programmed master tape, standardized format and packaging order by-product tapes, packaging orders, label requisitions and material and supply orders all carry the same identification and reference numbers in exactly the same place, regardless of form size.

For a total of approximately $7,500 in equipment, we ultimately released three electric typewriters, a duplicating machine, files and floor space, as well as clerical help. We also reduced the unit cost of producing a packaging order and eliminated the backlog of listings.

Engineering a New Package—STANLEY MANTELL, *manager, production planning, Royal McBee Corp.* In searching for a new packaging material suitable for direct shipment of typewriters to customers, our engineers considered such varied substances as foam rubber, rubberized hair, molded excelsior and even popcorn. However, each of these materials was unsatisfactory for such reasons as abrasiveness, appearance or adequate protection at a cost comparable to corrugated containers. It was at this time that we learned of expandable polystyrene.

By a series of experiments, we determined the required foamed polystyrene wall thickness that would permit shipment of typewriters for complete protection. We test shipped this new pack to one of our branch offices, being certain to measure and record critical typewriter dimensions carefully prior to shipment. A careful check-out at destination proved its success, indicating that under normal handling by shipping and trucking companies we should expect no difficulty with our new package.

Although the material cost on an expanded polystyrene typewriter package is more than its counterpart in corrugated, this is equalized by a correspondingly lower labor cost in preparing and packing the typewriter for shipment. The over-all net savings result in the receiving and the installing of the machine at destination.

Persuaders on parade

Chairman, WILFORD L. ROMNEY, *director, technical packaging division, Procter & Gamble Co. Associate chairman,* CARMON M. ELLIOTT, *manager, package design division, Eastman Kodak Co.*

Prestige Packaging for Fine Foods—JOSEPH B. STARKE, *manager, Gourmet Foods operation, General Foods Corp.* When the Gourmet Foods line was launched in 1957, its prestige nature indicated a need for a distinctive, elegant package design. And the number and variety of products required containers of many kinds, sizes and shapes.

Since this was to be a high-priced luxury line, the packaging had to look expensive and luxurious as well as be cosmopolitan in character, because the foods were being created in many parts of the globe. Some items were to be packed here and some abroad.

The latter fact led to many problems in obtaining packaging supplies overseas. A decision to introduce the line at a food show "weeks away" added further complications.

Despite some still unsolved problems, our packaging concept appears to have been sound, the packages accomplishing what they were designed to do. Retailers and consumers have responded favorably to the packaging, which has won several professional awards.

New Look for Housewares—J. J. CULBERG, *vice president, houseware sales, Ekco Products Co.* Packaging and point-of-purchase display are among the most important factors in solving Ekco's continuing problem of selling to women something they need but don't know they need. Moreover, through the upgrading of quality, packaging has helped us change the public's feeling toward housewares.

In the trend of self-service and semi-self-service, we have developed a merchandising-packaging-display concept that must sell items with little retail help. In addition, some of our products must be attractive as gift items. So our packages must sell themselves in many types of outlets and some must serve as gift boxes.

Ekco is heavily dependent on the packaging of its products to impart its story instantly and effectively to the buyer.

The merchandising concept that combines product, pack-

Picture of a packaging machine operator using AVISCO® CELLOPHANE

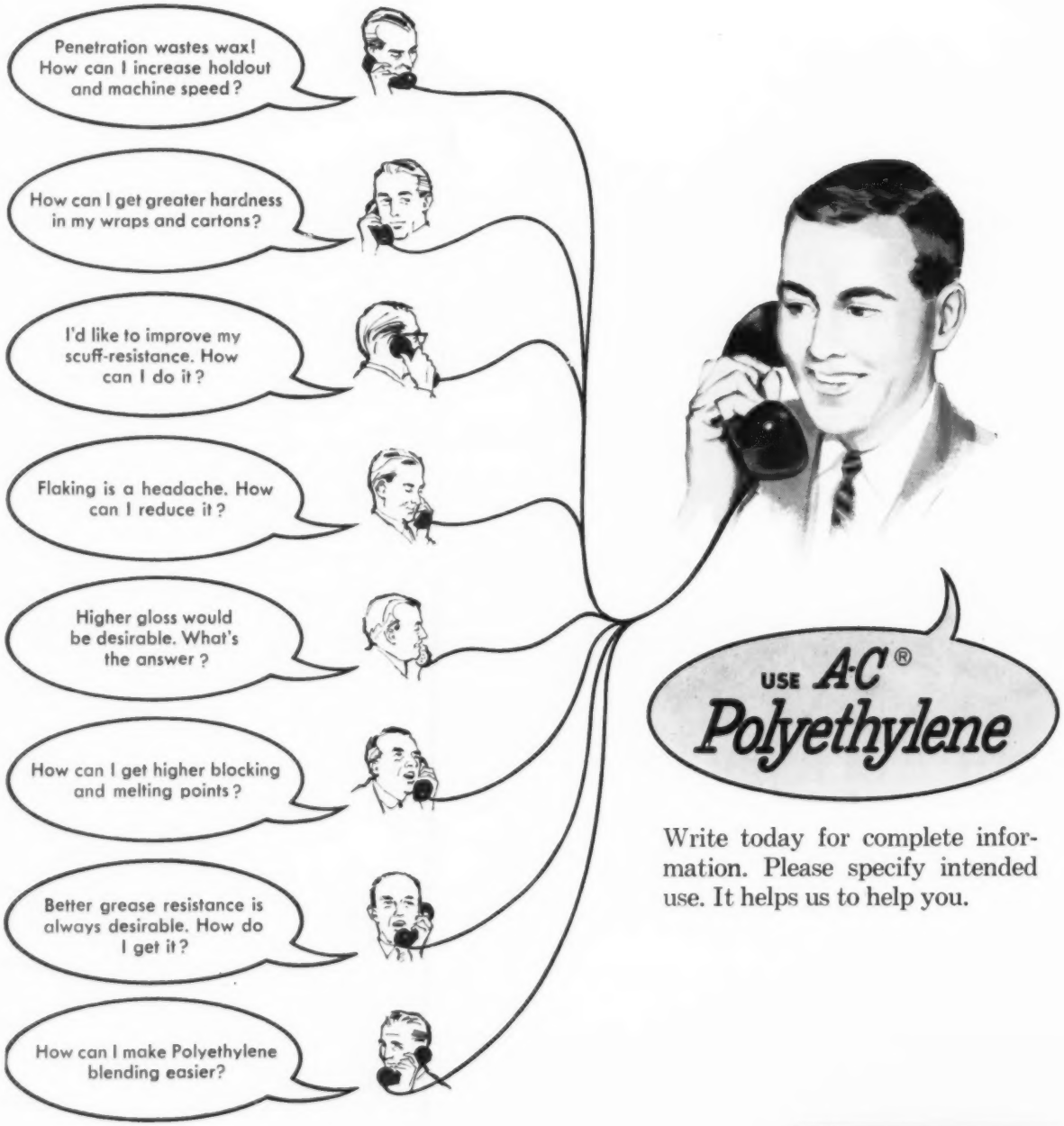
■ *It's just about that easy!* For nothing matches the smooth, trouble-free performance of cellophane on high-speed packaging machines. First of all, it has crispness, body and rigidity—won't droop or collapse like other films. Second, it's static-free. Third, it heat seals easier, faster and more securely than any other packaging material. But that's not all. Cellophane prints exquisitely. And its true transparency and sparkle create greater sales appeal for any product. Remember, too, cellophane seals in freshness and protects products from dust and handling. Add all these advantages to the low initial cost of AVISCO cellophane and you'll find it's a bigger dollar value than any other packaging film. We offer a complete service to assist you and demonstrate how AVISCO cellophane, plain or printed, will answer your requirements better than any other packaging material. Phone or write us for an appointment with our representative or a selected cellophane converter specializing in your field.

AVISCO

AMERICAN VISCOSE CORPORATION, FILM DIVISION, 1617 PENNSYLVANIA BLVD., PHILADELPHIA 3, PA.

8 questions – 1 answer

...about wax coated cartons and wraps


Penetration wastes wax! How can I increase holdout and machine speed?
How can I get greater hardness in my wraps and cartons?
I'd like to improve my scuff-resistance. How can I do it?
Flaking is a headache. How can I reduce it?
Higher gloss would be desirable. What's the answer?
How can I get higher blocking and melting points?
Better grease resistance is always desirable. How do I get it?
How can I make Polyethylene blending easier?
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National Distribution. Warehousing in Principal Cities.

Allied Chemical

age and price makes an instant and sales-provoking impression on the consumer. But how do we tell the consumer—or the gift buyer—that she's getting her money's worth—or more so—at any price? Packaging tells the story.

Toiletries and Cosmetics Packaging—WARREN B. DUBIN, *brand manager, Pond's make-up and fragrance products, Chesebrough-Pond's, Inc.* When we discovered customers were having a hard time spotting our products among all the competing brands in retail outlets, we researched our "image profile" and found that, though women considered our products superior, our packaging was "housewifely, unexciting, unromantic." It gave the feeling of "good old reliable," but lacked smartness and social stature.

As a result, a new Pond's package is now ready to appear on the market with a uniform and distinctive manikin motif throughout. To Pond's company image and product image that have long stood for reliability and quality to American women, we are adding modern cosmetic packaging with display appeal. We believe that the visual similarity between our new packages will now carry an endorsement of quality and performance from one product to another, will encourage multiple sales and will work under self-service selling conditions because related packaging is a merchandising plus under any selling condition.

In self-service selling, the cosmetic package must ultimately be its own salesman, but it must also have the exciting appeal of a new fashion, be pleasingly feminine in shape and color and give the impression of quality.

Packaging Drugs Today—JOHN DEAL, *advertising manager, The Upjohn Co.* Although the deep bonds established between firms supplying specialized drugs and the medical and pharmacy professions may explain why pharmaceutical packaging has that "scientific look," modernization of the retail drugstore and the increasing interest of the public in health and in new drug discoveries is spurring our interest in consumer products and our efforts to package them in ways the consumer will favor. Of 162 Upjohn products, 59 are suitable for direct promotion to the public and so are coming in for heavy attention at the packaging level.

Also, because our major advertising campaigns are in professional publications, the packaging and package display are major consumer promotion vehicles—that is the way we reach the public direct. Our packaging has to perform three functions: it must promote the Upjohn name, present the product in such a way as to reflect its basic character and be adaptable to merchandising.

As direct promotion and advertising become more significant in pharmaceutical marketing, attitudes toward the package will change. The industry is already taking a long, hard look at its packaging.

Industrial goods go to market

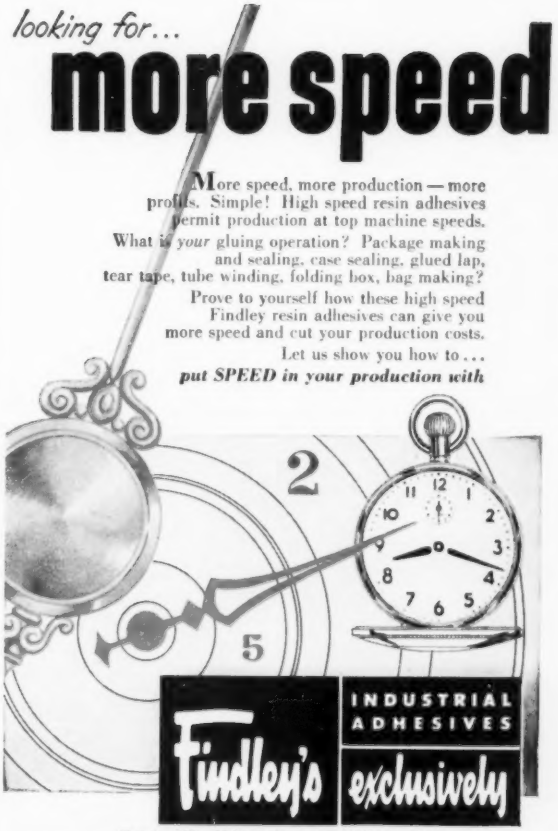
Chairman, ROBERT E. HEINE, *director, production planning, packaging and methods division, Eli Lilly & Co. Associate chairman,* CHARLES R. GUSTAFSON, *coordinator, central packaging, manufacturing services division, American Radiator & Standard Sanitary Corp.*

New Containers for Chemicals—ROBERT D. MINTEER, *manager, packaging development, Monsanto Chemical Co.* While there is still no container for chemicals which offers the ideal of low cost, high-quality protection and ease of handling all in one unit, many advances are being made.

Corrugated boxes in new shapes and sizes have a big future for transporting chemicals. A 12-sided corrugated unit developed by Monsanto is now in daily use for shipment of phosphates. Though more expensive than multiwall bags, it has greatly reduced materials-handling expense.

Heavy-gauge polyethylene shipping sacks are somewhat higher in price and difficult to handle in large sizes, yet their extreme toughness and protective qualities indicate great promise for use in shipping liquids as well as powdered and granular products. Polyethylene liners for smaller corrugated or fibreboard containers, are working out well.

Newly introduced square fibre drums are great space savers; eventually, it is hoped, a square steel drum may be developed to save warehousing and shipping space. The tetrahedron shape, a European discovery now making its appearance here, also seems to have good potential. New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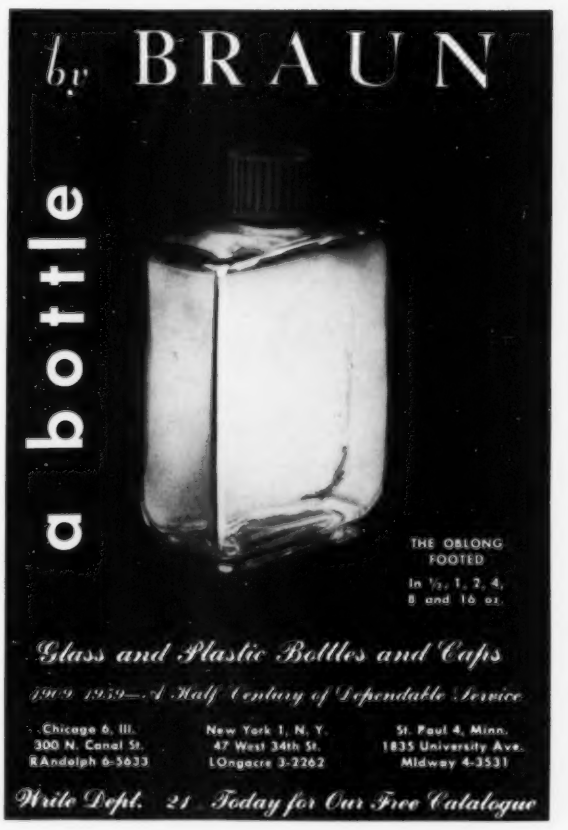
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Looking for a new package design or packaging material? Olin Mathieson's Packaging Division is ready to work with you to create packages that ship better, sell better.

The Packaging Division manufactures Olin Cellophane and Olin Polyethylene, Frostkraft paper and paperboard, corrugated shipping containers, multiwall sacks, grocery bags and folding cartons. Also Ecusta cigarette paper, light-weight printing and specialty papers. Call in an Olin Mathieson representative today.

OLIN MATHIESON PACKAGING DIVISION

Olin Cellophane, N. Y. 21, N. Y.; Frostkraft Products, West Monroe, La.; Ecusta Papers, Pisgah Forest, N. C.

Olin Frostkraft Ecusta

combinations of paper, polyethylene and wood are also producing interesting new chemical packages.

The entire chemical packaging field is on the lookout for new concepts in shape and materials which will make more effective, easier-to-handle packages with an eye to reducing over-all costs.

Rail Shipment—C. R. ANDERSON, *director of container and loading research, research center, Assn. of American Railroads.* AAR's research program, formerly scattered throughout various universities, is now centralized in Chicago and helps both railroads and shippers develop economical methods to improve packaging and loading techniques. All its research projects are referred by railroad members, but it is most helpful for both to have representatives participate in the testing programs.

The AAR laboratory submits all packages to a battery of more effective, easier-to-handle packages with an eye to tests. Each problem is handled individually. The AAR believes this service is mutually beneficial.

New packaging materials now reaching the market are being studied with interest. Anti-slip compounds in printing inks, embossed and stretchable kraft papers, new uses for plastics are improving package shipments. One real need is for new materials to fill the void space in loaded freight cars. It is also hoped that an economical use for expandable plastic foams can be developed in the future for cushioning shipments subject to heavy handling. Such a material would have to be low cost, readily available, simple to apply, non-toxic and easy to strip off. This is a big order. If it ever works out, it will be a boon to railroads and shippers.

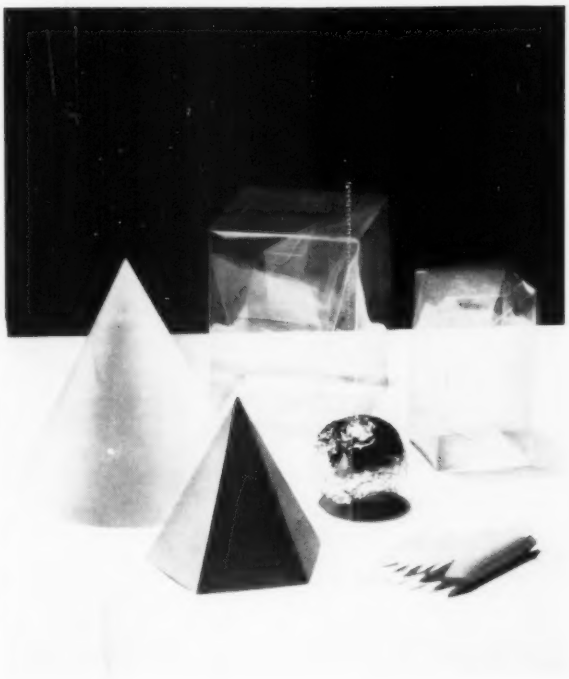
Industrial Tapes Applications—W. C. LARSEN, *manager, tape customer engineering department, Minnesota Mining & Mfg. Co.* Pressure-sensitive tapes are probably the most versatile of package fasteners. Some 300 different constructions provide varying tensile strength, color, moisture and shock resistance, and other properties.

Almost all types of pressure-sensitive tapes are suitable for automatic application. The flat-surface applicator taping head applies tape automatically at speeds up to 75 applications a minute. A pad applicator in conjunction with an automatic conveyor, lip feed and restacker can produce 300 taped lids a minute. With a vacuum wheel applicator, speeds of 3,000 applications a minute can be achieved. Pressure-sensitive tape is especially suited to joining premiums to packages of various sizes at high speeds.

Pressure-sensitive tape will neatly and economically card merchandise such as pencils and lipsticks at speeds of 60 a minute. Reinforced filament tape is very strong and can replace steel banding in many cases; it can be handled automatically and machine adjustments can be made for handling intermixed carton sizes. Carloading is another important use for the heavier reinforced filament tapes.

Pallet-Pac—Vendor Packaging to Aid Manufacturing—LEWIS J. SHIOLENO, *general manager, electronics division, Erie Resistor Corp.* When Erie's electronics division revamped its packaging, the company was looking for a package which would be a competitive asset in selling and, at the same time, helpful in its own manufacturing operation.

Erie's products are tiny electronic components—very delicate and seldom more than ½ in. long—much given to twisting and bending. Lead wires must be kept absolutely straight and customers were complaining that the tiny parts, shipped loose in corrugated boxes, were reaching them in poor condition. It was imperative that an improved package be developed and that economies be effected to counteract the increased cost of such a package. Erie's solution: Each tiny part is now affixed in precise position to a kraft paper strip as it goes down the assembly line, with the strips, in turn, clipped to corrugated pallets approximately 1 ft. square. In some cases, use is made of a chipboard reel with pressure-sensitive tape, to which the parts are attached in exact position. At the end of the line, both pallets and reels are slipped directly into shipping containers, where their tightly held positioning helps prevent damage. With each component positioned in the same way, efficiency on the production line has been stepped up. Quantity control is much easier to regulate. And the pallets and reels are equally useful to customer assembly personnel. ●



If you package with papers, foils, films—even fabrics—

tissue may do the job for less!

Crystal makes tissues that can be handled, printed, sealed—do most anything costlier papers, foils, films or fabrics can do. Think about your current packaging problem. Remember that Crystal tissues are now used across industry because they can be stitched or twisted or laminated or impregnated or what have you. Now—send the coupon for technical information or write if you have a special question.

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Classified Advertisements

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FOR SALE—USED 12-line Straight Line Model SL 55 "Geyer" Heavy Duty Piston Filler for any semi-liquid or semi-solid product. Will handle cans or glass containers. Range of sizes: 4 fluid oz. to 16 fluid oz. Speeds: 180 to 220 containers per minute. With or without separate motor driven agitator. Reasonably priced. Reply Box 1076, Modern Packaging.

FOR SALE—POTDEVIN 111S single and duplex cellophane bag machine, complete with 3 H.P. Reeves drive and all standard attachments. Condition excellent. Cameron slitter and rewinder, Model 24-3, 32" wide, score cut, for films, foils and papers. Condition excellent. Cameron Slitter and rewinder, Model 26-3, 26" wide, score cut, for films, foils and papers. Condition good. Inspection on request in New York area. Reply Box 1078, Modern Packaging.

MODERN PACKAGING AND FOOD PROCESSING MACHINERY AT GREAT SAVINGS—Pneumatic Scale Automatic Carton Feeder, wax liners, bottom sealers and top sealing units with interconnecting conveyors. Pneumatic Scale Tite Wrap Machine and Large Liner Transwrap machines. Jones Model CMV highly flexible automatic cartoner. Scandia Model SFS6F high speed automatic wrappers with electric eyes. Ceco Model A3901-12 Cartoning Machine with compression unit. Hayssen Wrappers, all sizes. Package Machinery Model FF Frozen Food Wrappers. Package Machinery Models FA, FA2, FA3 and FA4 Wrappers with and without electric eyes. Battle Creek Model 47B Wrapper. 2-Package Machinery Model PA (Palmer) machines. Complete details and prices available on request. Union Standard Equipment Company, 318 Lafayette Street, New York 12, N.Y. Phone: CAnal 6-5334.

Materials Wanted

WANTED—VINYL AND POLYETHYLENE Scrap. Send description and small sample. We are continuous buyers. American Vinyl Corp., 73-30 Grand Ave., Maspeth 78, N.Y. Tel.: DEfender 5-9200.

Machinery Wanted

WANTED — USED CORRUGATED CARDBOARD PLANT apparatus (complete plant or individual machines) for corrugated cardboard, adhesive on both sides and double-double operating width of 160-180 cm. Minimum operating speed, 80 m/min., with moveable scoring and cutting devices and a modern cross cutter. Address offers to: Annoncen-Schurmann, L. 778, Graf-Adolf-Strasse 12, Dusseldorf, Germany.

WANTED—USED TWO-COLOR SLOTTER. Working width, 1600 mm. required. Write, giving model no. and year of make to: Annoncen-Schurmann, M.779, Graf-Adolf-Strasse 12, Dusseldorf, Germany.

Help Wanted

PACKAGING ENGINEER — EXPANDING COMPANY seeking services of well qualified Mechanical Engineer with at least three to five years experience in design of packaging and heat sealing machinery. Machine shop background helpful. Company is located in town ideally located near lake area and St. Paul-Minneapolis. Submit detailed resume to Personnel Department, Doughboy Industries, Inc., New Richmond, Wisconsin.

PACKAGING ENGINEER—Nationally prominent food manufacturer with multiplant operations requires man with extensive experience in food packaging operations, materials and methods. Growth opportunity. Engineering degree desired. Send resume in strict confidence to Box 1084 Modern Packaging.

FLEXIBLE PACKAGING SALESMAN—Printer and converter of cellophane and polyethylene located in New York City has opening for experienced man. We are offering an established territory in Philadelphia and Eastern Pennsylvania which offers an excellent opportunity for right man with following and know-how. Replies held in strict confidence. Box 1077, Modern Packaging.

MANUFACTURERS REPRESENTATIVES selling packaging materials—An important Package Service firm seeks a separate top sales group in each of the following areas to represent it: Southeast, Southwest, Great Lakes, Ohio-Pa. Reply Box 1082, Modern Packaging.

SALESMAN WANTED—Flexographic film converter seeks the services of experienced man. Sales territory mutually agreed upon with specific assigned accounts. Salary plus draw—advise experience. Reply Box 1079, Modern Packaging.

PACKAGING PERSONNEL
Positions Filled and Secured. A confidential Nationwide Service for employers seeking personnel and individuals seeking new positions. Inquiries invited. Reply to Graphic Arts Employment Service, Est. 1942. Helen M. Winters, Manager; Dept. PAC-6, 307 East 4th Street, Cincinnati 2, Ohio. Phone CHerry 1-2201.

WANTED—SIDE-LINE FOOD PACKAGING salesman. Full-color flexograph printed cardboard products—boxes, trays, folders, cards. We have developed a very economical process of printing and protective coating in one operation. Reply Box 1080, Modern Packaging.

EXPERIENCED REPRESENTATIVES selling nonconflicting lines of packaging, wanted by young, vigorous contract packaging company, located Metropolitan New York. For this new, fast-growing field we have facilities for vacuum forming, heat sealing, electronic sealing, skin packaging, drop shipments. Representatives must have imagination, persistence, to establish themselves in this profitable field. Liberal commissions. Send replies to Box 1083, Modern Packaging.

Situations Wanted

ART DIRECTOR CREATIVE MERCHANDISER—Experienced in package, display and trademark development. Knows how to take maximum advantage of modern graphic art techniques. Works with boards, films, laminates, glass and plastics. Available free lance or full time. Works in your office or in own. Age 31. Prefers Chicago area. Reply Box 1081, Modern Packaging.

Miscellaneous

EUROPEAN MANUFACTURER of quality self-adhesive tapes e.g., cellulose and vinyl wants to contact companies all over the world interested in selling tapes. Special wishes re lengths, widths and put-up are attended to. Manufacturing licenses are also available in some countries. Reply Box 1075, Modern Packaging.

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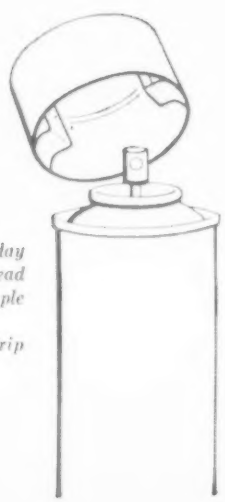

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